

SOUTHERN TEXTILE BULLETIN

VOL. 30

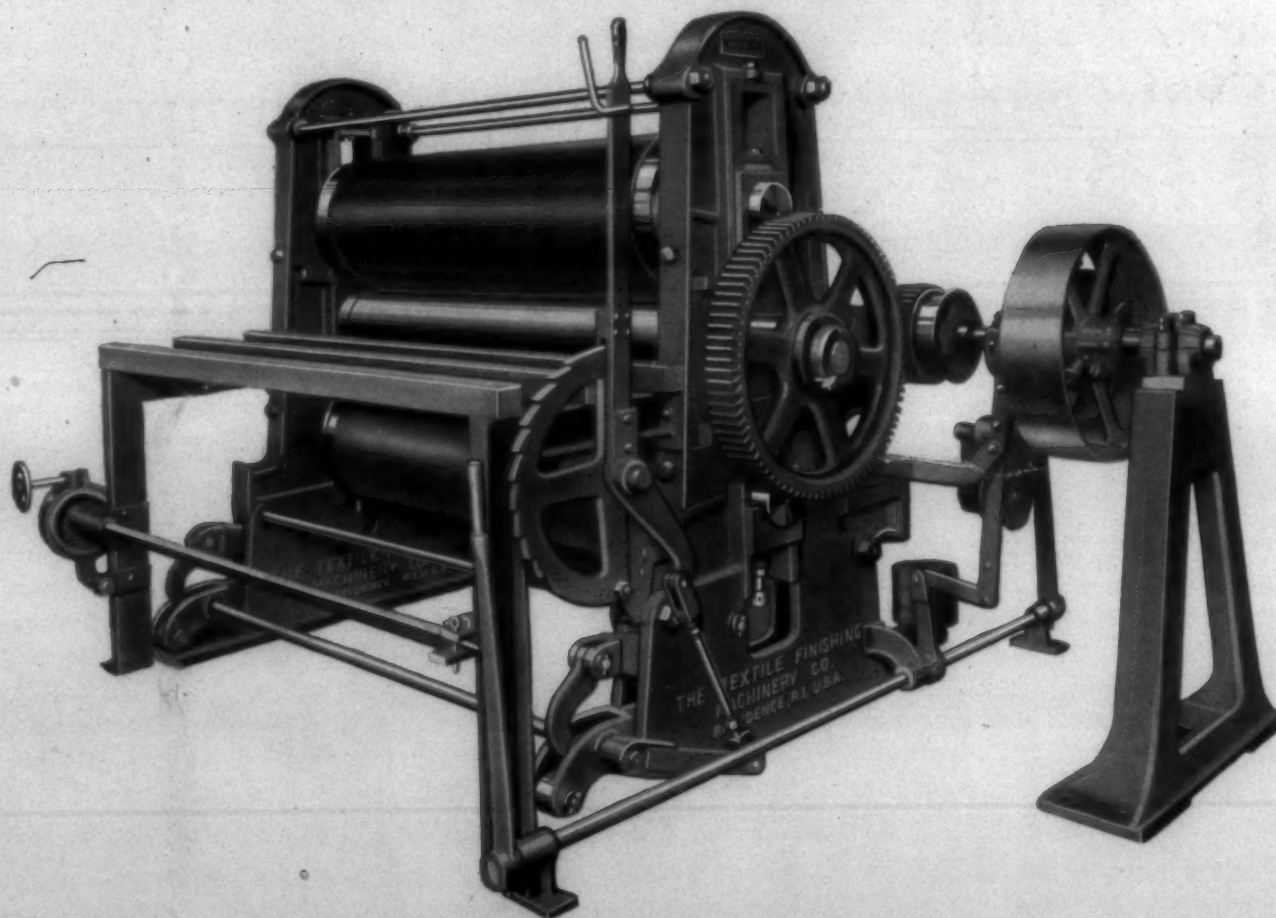
CHARLOTTE, N. C., THURSDAY, MAY 13, 1926

NUMBER 11

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2. Changing the air.
3. Refrigeration.

We will eliminate refrigeration. It is too expensive—and too impracticable except for very special cases.

But if you could remove the air from a mill with sufficient rapidity, it would carry away the heat. It might carry away your hat too, for it would require a tremendous air-handling capacity to do it.



The evaporation of every pound of water absorbs 1050 Heat Units.

If we could effect a compromise between 1 (evaporating water) and 2 (changing the air), we might get the best from both.

For easy figuring, let us do some estimating for a spinning room of 100,000 cubic feet, making 30s to 40s yarn. It's a dry day in summer. The outside temperature is 94°F. The outside relative humidity is 34%.



If we circulate 3,770,000 cubic feet of air through the room; that is, change all the air 38 times each hour, we

can keep the temperature of our spinning room down to 100°F. We shall keep the relative humidity down too; down to 29%. That would be a nice place to spin yarn in, wouldn't it?

But—if we could reckon with this air change feature and realize it had merit; if we could bring about only 4.5 air changes each hour—and then with humidifiers evaporate 45 gallons of water, our relative humidity would be 65%, and a temperature of only 96°F. would result. Good spinning conditions, but possibly not too comfortable.

Supposing you say—"I'll do the best I can without humidifiers and change the air as often as I can the natural way. I'm not going to buy any humidifiers to evaporate or fans to circulate. I'm going to get what I can as cheaply as I can. I'll open the windows."

All right, with nine air changes, which is about the best you would average with open windows—your spinning room would have a temperature of 115°F. and 19% relative humidity. Laugh that off to your help—if you can!

But—if you evaporate enough moisture to produce 65% relative humidity (and only the same nine air changes) your temperature would be 89°F.

What this means to you in dollars and cents; help more comfortable; no protests from the cotton for lack of moisture—you tell 'em.



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SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 18 WEST FOURTH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MARCH 3, 1879.

VOL. 30

CHARLOTTE, N. C., THURSDAY, MAY 13, 1926

NUMBER 11

Making American Competition Effective

OUR competition is made effective abroad in exactly the same way it is made effective at home. The problem is to sell goods at profit, and we do this in both fields. Our success abroad is directly as to planning and efficient effort, and inversely as to the absence of these things. This is also the rule at home.

There is essentially no difference between the two fields so far as principles are concerned. We work abroad with quotas, economic analysis, credits, forecasts, advertising, calculation of costs and other characteristics of domestic work. We have price competition in the United States based on distress selling, buying at cost or under cost as a result of placing orders at slack manufacturing periods, low costs of production as in the case of Southern cotton mills and non-union coal mines, gluts of commodities as in the case of oil, and so on. We have the same competition abroad based on similar analogous conditions. But price in any case is only one of a great variety of elements bringing about sales of goods. In the case of standardized or bulk goods, price is frequently a dominant consideration, although even here prompt delivery and other things produce sales in spite of price. In a wide range of commodities, however, not standardized and not bulk goods, many elements enter into a buying impulse and this is true abroad as well as at home. In this great list of manufactured goods, if we had two identical things offered a possible purchaser at the same time and at different prices, other things being equal, the cheaper article would probably be purchased. But two identical things are rarely offered the same person at the same time, the offer usually consisting of different things at different prices, frequently at different time, the strategy of salesmanship and advertising, the weight of good will, and explains the fact that different makes of automobiles, or shoes, or hats, or machine-tools, or radios, or what you will, are purchased in large volume from many different sellers. This is the law of selling.

There is no difference in this matter between foreign and domestic trade. Popularly the idea seems to be that foreign trade can only be

Address by C. C. Martin, of National Paper and Type Co., before National Foreign Trade Convention, Charleston, S. C.

built up on a basis of price competition, but abroad as at home the same factors operate in creating a sale: quality, prestige, price, friendship, influence, service, style, quick delivery, ability to sell, advertising, novelty, adaptability, production, habit, accessibility and innumerable other factors. If we know how to sell we can meet conditions at home or abroad. The belief that at home we at least have the protection of a tariff wall and a certain "dead" line below which prices cannot go, while abroad the "dead" line is the lowest cost of the lowest wage country and cannot be met, is disproved first, by the wide range of production costs in this country, and abroad, by the known fact that low-wage labor is inefficient and high-cost labor. Many owners of foreign American factories have stated they can produce in the United States as cheaply as in foreign country. The gain is in laid-down costs, freedom from tariff and other restrictions.

We sell steel, textiles, leather and numerous specialties in large volume abroad, in competition with similar goods on a price basis, but a great tonnage move wholly, or in part, on a different rating. Salvador is using American linotype machines brewing machinery; Argentina, American agricultural machinery; the world, American kerosene, lubricating oils and canned goods; our machine-tools are eagerly bought by Germany and Great Britain; American typewriters and adding machines; our cameras and automobiles are usually first in the buying of the world's citizen; our shoe-making machinery is universally used—all of this in part only because of price. World-wide is the flow of our commerce and under the aegis of that winning force, the American salesman and American advertising, the waves and eddies of this trade are reaching the most far-flung shores. To these places we are sending chewing-gum and locomotives, silk stocking and canned goods, hats and printing presses, saws and shoe machinery, typewriters and industrial machinery, and a vast range of manufactured and semi-manufactured goods

to the tune of nearly \$8,000,000 a day. The world does not take this value and tonnage from us because it wishes to make a friendly gesture. These goods are taken because they needed, because they are sold, or better still, bought. Goods at home are taken in the same way.

"That all may be true," says the conservative, "but at home we are dealing with uniform trade practices; we have a national bankruptcy law and a Chicago dollar is a Boston dollar." This would be fine if were true. The conservative seems to forget that every month our commercial agencies publish long lists of business mortality; we are now changing our bankruptcy law because of its inadequacy; the cost of our bankruptcy and fire frauds in 1925 was \$250,000,000; the National Association of Credit Men drove in \$1,000,000 last year to take care, in a way, of constantly increasing fraudulent failures; this country is no more free than others from sharp trade practices, cancellations, refusal of goods on this or that technically, demands for allowances of all sorts and kinds.

Even under the worst period of exchange fluctuation it was possible to assure gold values, and today with more stable currencies, in a good many cases we can do without this insurance. However, many foreign credit losses take place because of the ignorance of the seller of credit procedure, and neither in law nor practice is there excuse for ignorance. Moreover, if we would stop trying to cram goods down the throat of the foreign buyer without caring whether he can use them or not, we should be better off. But in any case the men who daily are shipping millions of dollars worth of goods abroad are getting paid for their merchandise.

Ten years ago if you had asked the farmer, the merchant, the small investor, many bakers and manufacturers, to explain the simpler problems of foreign exchange, they would, in most cases, have replied that we were not interested in these things and it did not pay us to give time to their study. But today it is vastly different. To whole United

States is alive to the implication of foreign trade, our needs of markets abroad, and the franc, pound sterling, mark and other currencies are real, definite facts. A great army is working in the service of this foreign trade, and as we become more conscious of our vast surplus manufacturing power and as business men sense more keenly the coming slowing down of domestic activity, we will turn to foreign markets with increasing eagerness. Congress is awake at last and realizes that money spent for foreign trade promotion is just as valuable as money spent to help our farmers grow and market their crops. It all means increased national wealth and well-being.

They used to make fun of us a few years ago when we ventured into foreign fields. We did not know how to dress or act in the drawing-room of international trade. And of all our critics none were so severe as those at home. Our camp-followers still keep up the chatter because they cannot see what is taking place ahead, but those in the front ranks know that, as a nation, we are possessed of the rules of the game and that we can play it on a footing of complete equality. If we needed proof of this we have it in the volume of testimony that comes from the four corners of trade, and which appears duly certified in the press and official reports of our international competitors, who used to tell us kindly but firmly that the foreign trade effort was not for us and we had best stick to what we were fitted for and knew something about. Today it is different. One-half of the world seems to be trying to outdo the other in singing our praises.

A voice from the Argentine tells us that the British can never hope to compete in such lines "as harvesting machinery, automobiles, typewriters and other items, in which America is first and the rest nowhere." Evidence from India is to the effect that "American salesmen are frequently more fully conversant with the practical working of their machines, and are able to give more valuable advice on technical matters than their British rivals, who are often merely salesmen and not engineers in addition."

(Continued on Page 31)

Bleaching of Rayon

TO-DAY we see the manufacture of this new fibre in a position of great importance, and in the processing of it for the production of new textile fabrics and materials, like all other manufactures of any note, there is necessarily a certain amount of wastage which accrues in the various processes through which the material passes. The gathering together of this wastage is now an important industry in itself, and the working up of this waste has become a successful commercial proposition. The main sources of waste are in the manufacture of the silk and in the spinning and weaving, and while profits may be good in the relatively new industry, yet to be economically of greater value the waste is now carefully considered and marketed.

In a recent issue of the Deutsche Faerber Zeitung attention has been drawn to the bleaching of this waste product of artificial silk manufacture, and the author, W. Kosche, points out that the process which is used for working-up is that silk depends on the character of the waste itself, i. e., whether it has already been through finishing processes or not. If it has, all impurities with which it has become contaminated must be first removed. Bleaching then follows.

The waste may vary in several

ways, according to the method of manufacture, the finish which has been given to it, and the different kinds of impurities which may be found in it, such as machine oil, grease, dirt, etc.

Four Kinds of Waste.

There are four main classes into which the waste is divided:

1. All waste silk from the manufacturers, except,
2. Waste viscose silk;
3. Waste from the processes of spinning and weaving, and
4. Waste sweeping and similar dirty varieties of the spinning and weaving establishments.

Processing.

In preparing for the bleaching of the waste material there are three main operations—the preliminary treatment, the bleaching proper, and the after-treatment.

In the first operation the silk is first disintegrated and the dust and dirt and other foreign impurities removed and the fibres left in a loosely held condition. These are then put into a kier which is given about half the quantity of silk waste to hold which it would be expected to contain if it were filled with cotton. The amount which the kier is given is just so much as not to be tightly packed. The top of the material is then covered with a cover so as to allow a certain

amount of pressure to be given to it.

The waste is then treated with a solution of 1½ per cent sodium perborate, and a 1 per cent commercial sodium hydrate, or a solution of 1½ sodium silicate, at 60 degrees C. for two hours; the last half-hour the temperature being raised a further 10 degrees, in order to use the last traces of oxygen in the liquor.

Throughout the operation it should be noted that the waste may deteriorate by being too long in contact with water, most of these types of artificial silk possessing the unfortunate property of suffering a weakening effect under the influence of water and wetting generally.

Bleaching Operation.

For the bleaching process proper sodium hypochlorite is probably the compound most serviceable and easy to employ, and a solution is employed at normal temperature, and containing about 2½ grain per litre of available chlorine. The author of the paper in the above journal mentions eight to ten hours, as the duration of treatment in this solution, but this time is probably too long, and several hours less time may be found to give the required bleach without the risk of weakening of the material which too prolonged a treatment may in-

volve. After the hypochlorite the material is washed-off thoroughly with water, then scoured and treated for half an hour with a weak solution of hydrochloric acid. A thorough wash is then given to remove entirely all traces of acid.

In another vessel the material is then treated with a warm solution of soap, or in some cases it is given three good washings with water, then whizzed and dried carefully at 45 to 50 degrees C.

Viscose Waste.

In the case of viscose silk waste the author recommends treatment with the reducing types of bleaches such as bisulphite and hydrosulphites, decroline, blankit, etc., instead of the hypochlorites, in order to remove the sulphur content of the material, which is always liable to contain some. A 3 per cent bisulphite or 1 per cent hydrosulphite solution for period of two hours at a temperature of 90 degrees C. is stated. The silk is then washed again. There is a liability of rust stains making their appearance, due to the nature of the waste, and this is removed by treatment of the material in a solution of oxalic acid, followed by a wash-off with water again.

Viscose silk waste usually requires a brightening process, con-

(Continued on Page 26)



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The silvery luster of the Paint spreads a soft, bright working light over the rooms.

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Oiling of Cotton

During the past year considerable discussion has appeared in the different trade papers on the effect and benefits of adding a small amount of oil to the raw cotton in the hopper of the breaker picker.

Through the courtesy of one of our mills the Association conducted a series of experiments to determine the value of the oil on the raw stock at that mill. From a theoretical standpoint it would seem that if the addition of oil to the raw stock has any advantages it would have its greatest effect on cotton that has been bleached or dyed as raw stock. The oil would replace, to a certain extent, the natural oils and waxes that have been removed by the bleaching or dyeing process. For this reason the first experimental runs were made on raw stock dyed cotton that had the reputation of being the worst running color the mill used. Equal quantities of regular and oiled stock were run at the same time in adjacent machines. The results of this investigation can be summarized as follows:

1. There was no visible change in the running qualities of the oiled cotton in the pickers and the percentage of waste removed by the beaters was substantially unchanged.

2. There appeared to be slightly less fly in the air around the cards running on oiled cotton. The difference in actual waste, however, was negligible.

3. There was a visible improvement in the running of the oiled cotton in the drawing.

4. There was a visible and measurable improvement in the running of the oiled cotton in the roving process principally on the intermediate roving frame, where the end breakage per hour on the oiled cotton was appreciably less than on the regular cotton. In the slubber roving the amount of waste made was less for the oiled cotton than for the regular cotton.

5. There was a visible and measurable improvement in the running qualities of the oiled cotton in the spinning. The end breakage for the oiled cotton was appreciably less than the end breakage for the regular cotton. The amount of fly in both roving and spinning processes was too small to permit measurement or to detect any marked difference in amount of fly as between oiled cotton and regular stock.

6. Under the conditions of this test the average yarn strength of the oiled cotton was less than that of the regular. The variation of the individual breaks from the average was less for the oiled cotton than for the regular.

After the completion of this part of the investigation sample lots of grey cotton were carried through the manufacturing process and then the oiling equipment left to run for about six weeks to give the operators an opportunity to become familiar with the handling of oiled cotton and then additional lots were followed through. Table 1 shows some of the data obtained in running the last lot of cotton. The results of this test can be summarized as follows:

1. The three points at which the effects of oiling the raw cotton were most evident were:—In the process of carding; in the process of spinning; and in the yarn itself.

2. In carding the invisible loss was much less in the case of oiled stock.

3. In spinning the oiled stock showed reduced number of ends down and a reduction in the variation in breaking strength of the individual samples. The breaking strength was consistently lower and the yarn showed more variation in count in the individual samples.

4. While changes such as these were measurable, the favorable changes were scarcely sufficient to warrant the conclusion that in this particular mill where the tests were made there would be sufficient economy or improvement to justify the adoption of the process.

5. It is only fair to say that in this particular plant the equipment, the organization, the quality of raw material and all operating conditions were unusually favorable to good processing and an excellent product. Consequently, the opportunity for improvement was necessarily small. It is therefore quite possible that under different local conditions the use of this process might result in greater advantage than were recognizable in this particular case.

6. While the results of this single investigation did not develop such advantages as would warrant definite recommendations for general use, it is believed that the question of the oiling of the cotton is worthy of careful study and that conclusions can best be drawn after thorough trial and experience in each individual case.

Oiled Cotton vs Regular Cotton

	Oiled	Regular
Breaker Picker		
Weight of laps—pounds	1008.68	1011.68
Intermediate Picker		
Weight of laps—pounds	1003.5	1016.37
Finisher Picker		
Weight of laps—pounds	1000.81	1007.18
Total Beater Waste %	2.1%	2.5%
Card		
Cotton fed in—pounds	1000.81	1007.19
Weight of sliver—pounds	951.18	958.19
Fly and strippings %	0.4%	0.35%
Invisible loss %	0.17%	0.74%
Spinning		
Count	21.6	20.9
% variation in count	2.3	1.8
Skein strength—pounds	65.5	73.5
% variation in strength	4.5	5.6
% stretch at break	8.4	8.7
End breaks per 100 spindles per hour	1.95	2.23

Reprint from bulletin of National Association of Cotton Manufacturers.

Roller Bearing

ALLIS-CHALMERS MOTORS

ALLIS-CHALMERS protects motor users with the strength and accuracy of electric steel frames and distortionless cores. Allis-Chalmers insures motor life with the silver-brazing process on rotor bars, with special baked insulation, with true uniform cooling. And now the advantages of anti-friction bearings are also obtainable in Allis-Chalmers electric motors. The established Allis-Chalmers line is rounded out with Allis-Chalmers induction motors, equipped with Timken Tapered Roller Bearings.

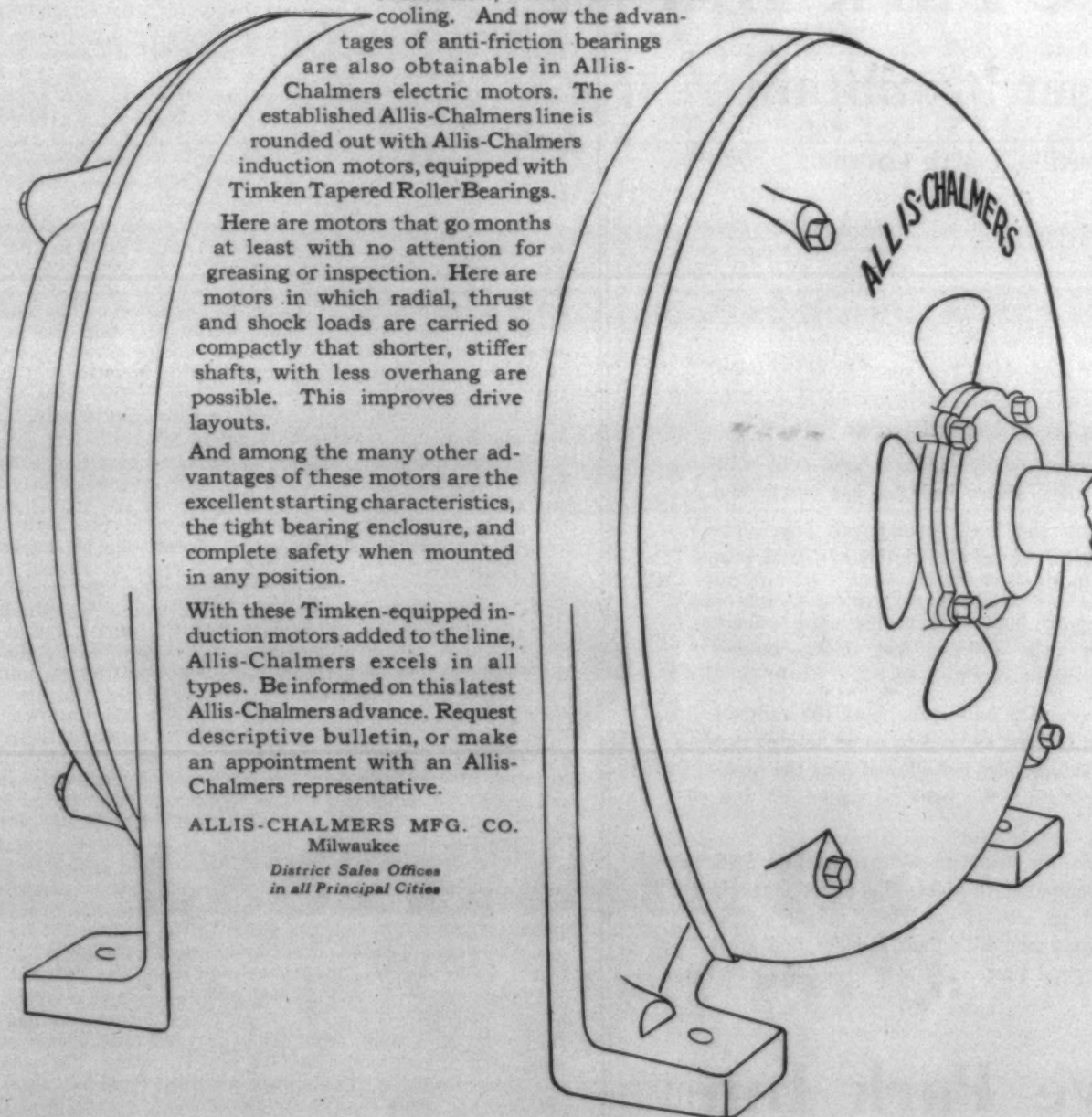
Here are motors that go months at least with no attention for greasing or inspection. Here are motors in which radial, thrust and shock loads are carried so compactly that shorter, stiffer shafts, with less overhang are possible. This improves drive layouts.

And among the many other advantages of these motors are the excellent starting characteristics, the tight bearing enclosure, and complete safety when mounted in any position.

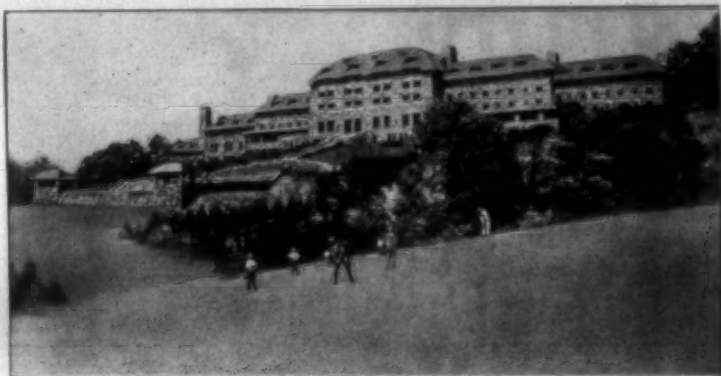
With these Timken-equipped induction motors added to the line, Allis-Chalmers excels in all types. Be informed on this latest Allis-Chalmers advance. Request descriptive bulletin, or make an appointment with an Allis-Chalmers representative.

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It is the cleanest, most sanitary hotel ever built. Every floor is tile. Every bedroom has mosaic tile.

The foods are the finest money can buy. The kitchen is spotless white tile to the roof and pure white mosaic tile floors.

The buildings are built of great mountain boulders—some of the walls are five feet thick—boulders weighing as much as four tons each.

We are three and a half miles from the railroad. The street cars are not allowed to come near enough to be heard. Automobiles not allowed near the building during the night. We have no smoke, no dust, no train noise.

We have pure air, common-sense, digestible food, quiet in the bedrooms at night, the finest organ in the world, and an atmosphere where refined people and busy business men with their families find great comfort and a good time.

Grove Park Inn

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The Story of Cotton

On account of its very interesting observations relative to the early history of cotton and cotton manufacturing, we are printing material copied from a small book, published about 1870, in London, Eng., by the Society for Promoting Christian Knowledge. As the book was not copyrighted and is now evidently out of print, we feel a liberty to give its contents to our readers, many of whom will be interested in the early history of the industry.—Editor.

(Continued from Last Week)

CHAPTER VI.

Samuel Crompton.

Hargreaves' machinery was the best adapted for spinning soft weft yarn, Arkwright's for spinning warp and hosiery yarns of a hard, compact quality. On these two independent plans all the cotton yarn used in the kingdom was spun, till a beautiful apparatus was devised by Samuel Crompton, which was called the mule, or mule-jenny. This new machine combined the principal features of each, while it improved upon both. It enabled the spinner to work much faster, and also to spin a far finer yarn.

Samuel Crompton was born near Bolton, in Lancashire, in the year 1753. His father rented a small farm, and according to the custom of the age, occupied his spare time and that of his family in spinning and weaving. Samuel was early sent to school, but his hours at home were spent not in play, but in work. He helped his mother at her wheel, and his little legs were accustomed to the loom as soon as they were long enough to reach the treadles. The elder Crompton died when Samuel was but a boy, but the widow was a clever, efficient woman, well able to manage house and farm, children and loom. Her butter, her honey, and her elder wine were famous as the best of their kind, and her neighbours had such a high opinion of abilities, that they chose her as overseer of the poor. She kept her boy in very good order. He said in later times that she used to beat him when he did not know that he had done anything wrong, and as he asked the reason she would say, "It is because I love you so." Under her he got through a great deal of work, but she was very impatient of the music which was the chief delight of his life. However, when his school days were over, she allowed him time in the evening to carry on his education at Belton and learn something of algebra and mathematics.

At the age of sixteen we find Samuel Crompton residing with his mother in a portion of an ancient mansion called Hall in the Wood. It was a solitary place then; a rambling old house with wide staircases, spacious corridors, and long galleries. In a corner of this place the boy passed his life in seclusion, alone for hours at his wheel or his loom, while his busy, active mother bought the cotton wool, and sold the yarn or cloth. She did all the bargaining, all the fighting with the outside world, and left him to his solitary work. She exacted a daily amount of labour from him—and he went on steadily with his task in the hope of snatching a few minutes afterwards for his violin—an instrument which the ingenious lad first made, and then taught himself to play.

He used one of Hargreaves' spinning-jennies, but it did not answer very well for the material he used. The yarn was constantly breaking; a great deal of time was spent in piecing it, nor did the quality satisfy the spinner. During his lonely hours he brooded over the possibility of improving the method of spinning. At the age of twenty-one he determined to invent a new spinning-machine, and after five years of patient solitary labour he constructed the mule. To use his own words: "My mind was in a perpetual endeavour to realize a more perfect principle of spinning, and though I was often baffled, I as often renewed the attempt, and at length succeeded to my utmost desire, though at the expense of every shilling I possessed." He was of course only able to devote himself to the mule when his daily work was over. So he laboured early and late, often in hours stolen from sleep. Strange sounds were heard in the old Hall when every one was supposed to be in bed, lights were seen in places where no lights were expected, or could be accounted for, so it was whispered that the place was haunted. But the only spirits at work were the spirits of ingenuity, patience and resolution, embodied in the young man, who toiled for five long years in the endeavour to realize what his fertile brain had devised.

Crompton had not been brought up as a machine maker—he possessed no tools beyond the few simple ones he could afford to buy. Every penny he had went to purchase what was needful to construct his machine, and he was thankful whenever the Bolton theatre was open, to earn eighteen-pence a night by playing the violin in the orchestra. Under these circumstances of course he could not make rapid progress with his machine. Still he got on by degrees, and at last the mule was finished.

Just at that time the Blackburn spinners and weavers, who had already driven poor Hargreaves from his home, broke out again in commotion. They went in a body from place to place and destroyed every spinning-jenny which had more than twenty spindles. The smaller jennies they had found useful to themselves, for they could set them up in their own cottages, and with their help get through a good deal of spinning. The larger ones, which could only be used in mills and factories, they looked upon with hatred and dread, as likely to bring down the price of labour, and these they determined to break down and get rid of. While these riots were going on in the neighbourhood, Crompton was in constant fear for his mule. At last he took it to pieces, and hid it in a loft near the clock of the old Hall, where it remained for some weeks.

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Reduce direct labor costs.
Eliminate your spool replacement expense.
Eliminate loss of yarn due to spools (in many mills this loss runs into thousands of dollars).
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Increase about 10% the yardage on your spools.
Eliminate spooler kinks and knots due to spools.
Eliminate broken ends on your warpers due to spools and thus increase warper production 20% to 30%.
Materially improve the quality of your warps;
And thus better the quality and increase the production in your weave room.

NEITHER we, nor any manufacturer, can influence your belief in the value of products. Only the article—through the possession of superior qualities—can establish itself as the standard.

Lestershire Vulcanized Fibre Spools have reached that enviable position in the textile industry. By discarding ordinary materials and improving construction these spools have won wide usage and good will.

The paramount idea in the manufacture of Lestershire Spools is not how *cheap*, but how *good*!

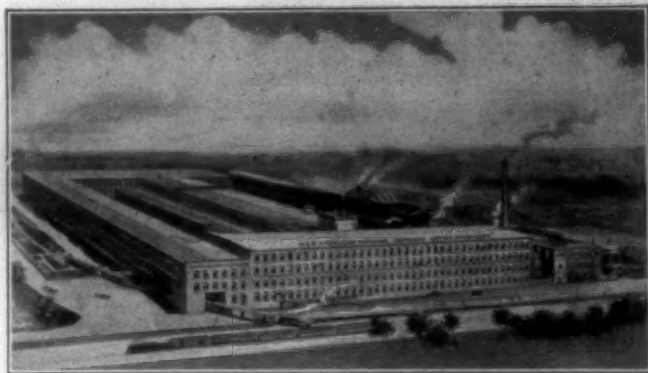
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Complementary Material

For Cotton Trade

WILL the prosperity of the artificial silk industry continue? The writer was told recently that the new textile—it may still be described as new—was under a cloud and that there was a surplus production, says a Textile Engineer in Manchester (Eng.) Guardian. An investigation proved that this opinion, expressed in sincerity by a man who has had a long experience of the Lancashire trade, was not accurate. Every department of the industry is busy, and it may be regarded as a sign of health that there are, all the time, new developments. It has been said that the aim has been quantity rather than quality and that artificial silk is unsatisfactory because of its low tenacity, wet and dry, while its considerable elongation is stated in some quarters to be another disadvantage of the ordinary artificial silk. The truth is that the success of artificial silk depends largely on its treatment, even a knitted garment will retain its shape if made properly, and the users of such garments now realize that there is a right and a wrong way of washing them.

In Lancashire and Yorkshire there have been interesting developments recently, some of these being in connection with the much-talked-of but little-understood staple fibre. There has also been produced recently a new fibre that will spin together with cotton and which can be carded with cotton without doubling. The lustre of this new fibre is not so good as that of other artificial silks, but the claim is made that it has a high tenacity and a very low elongation. The writer has shown interesting comparative tables recently about this new material, obtained as the result of laboratory tests, in which the wet and dry tenacity figures were much higher than those of either cotton or wool and comparable with those of silk. It is not suggested here that this new material will affect the prestige of the older artificial silks, but it is worthy of note because of the claims that are made for it. Until it is being produced in this country on a commercial scale it will be impossible, however, to appraise accurately its real worth.

In connection with the above statement regarding elongation it is of interest to note that tests were made some time ago to show the stretching properties of viscose and acetate silk under varying degrees of relative humidity. The work was undertaken by the National Association of Cotton Manufacturers and in a bulletin issued, the statement was made that, keeping the effect of the moisture on the stretch in mind, it was apparent that unless care is taken both in winding and weaving to maintain constant moisture conditions the yarn will vary in the amount that it is stretched. It was found that after exposure to a relative humidity of 45 per cent at a temperature of 70 degrees F. for four hours the viscose type yarn, when tested in a breaking strength machine equipped with an auto-

graphic recorder, stretched at a fairly uniform rate until a load of about 44 lb. had been applied. The stretch at this point was about 3.9 per cent. Further load caused a very decided change in the slope of the curve, indicating that the yield point had been reached, although there was no rupture until a load of about 56 pounds had been applied and the stretch had increased to 13½ per cent.

All Lancashire manufacturers who have turned their attention to artificial silk or singles yarns have not been uniformly successful. On the other hand there are firms that have gradually developed a large market for artificial silk cloths, and their success has been achieved without any revolutionary changes having been made in their machinery equipment.

It may be interesting to give some particulars of what has been done by one firm which until recently was engaged wholly on cotton weaving, but which now has, on an average, 260 looms weaving artificial silk out of a total of 660. This firm makes a specialty of brocades and jacquards and uses yarns made by the viscose, cellulose acetate, and cuprammonium processes. A large proportion of its manufactures is of cellulose acetate yarn, because of the practicability of dyeing the material in two colors.

Cotton manufacturers are gradually realizing that by converting looms to artificial silk they need not be making a permanent change. There are firms in this country which may be manufacturing artificial silk on a large proportion of their looms for a period and then, owing to changing market conditions, may find it necessary to revert to cotton weaving, and this they can readily do. Let it be clearly understood, however, that there are many looms in Lancashire today which are not and could not be suitable for artificial silk work; as a general rule, the newer and better the loom the more easily can it be adapted.

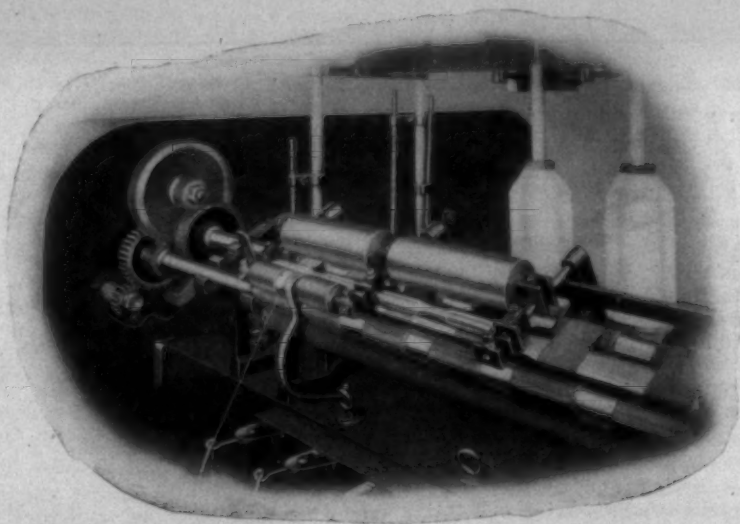
Modifications in looms are in connection with the shuttle, healds, and reeds, and loom makers have given every assistance to the manufacturer. There are firms who a year or two ago did little or no artificial silk work that have achieved a success in which the loom-makers can claim to have had some part. When it is stated that the cotton weaving industry is manufacturing a larger volume of work than twelve months ago and that those engaged in the new trade are optimistic about the future, it will be evident that there are no grounds for the pessimism of those few who refuse to believe that the popularity of artificial silk is more than a passing fashion phase.

It is rather surprising that some manufacturers have not yet been convinced that staple fibre is not, as it is supplied today, a waste product. The writer was told recently by a very successful manufacturer

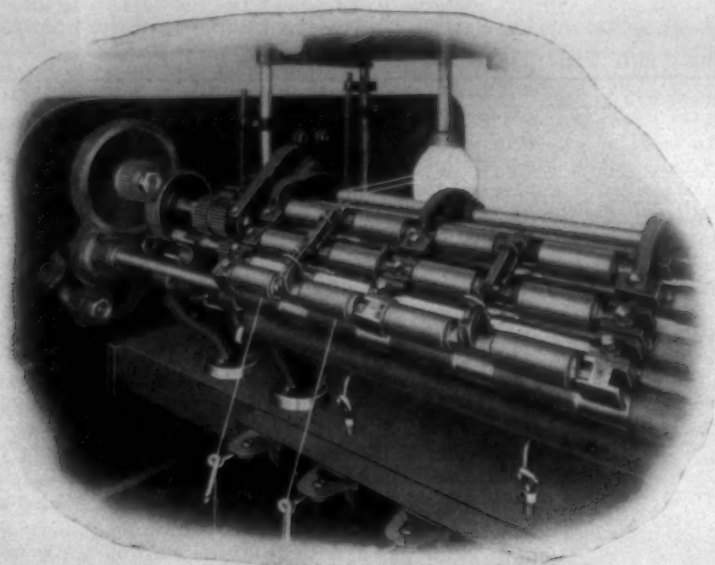
(Continued on Page 43)

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Practical Discussions By Practical Men

Questions for Carder.

Editor:

What causes cotton to blow out around the screens in a Whitin Card 100 pattern?

What setting gives the best results? With cards doing 100 lbs. a day of average 15-16 cotton.
No. 29.

Weaving Cloth Four Times Width of Loom.

Editor:

As I understand that cloth has been successfully woven seven times the width of the loom, will some of your readers show me the design plan for weaving cloth four times the width of the loom? S. C.

Weighing a Cotton Fabric.

Editor:

Can a single cotton fibre be weighed?
Textile Student.

Textile Student has asked if a single cotton fibre can be weighed. It is said that there is a scale in Washington upon which a single fibre of cotton can be weighed. However, even if there is no scale fine enough to do this, a single fibre can have its weight ascertained by computing the amount of fibres in a pound of cloth or in a pound of yarn. Now divide 7000 grains by the total number of fibres, and the weight per fibre will be ascertained. Or, divide the 7000 into the total number of fibres found in a pound of yarn or cloth, and the answer will be the total number fibres there will be per grain avoirdupois. This is easily done. Mathics.

Answer to Pete.

Editor:

We notice in your issue of April 29th inquiry from "Pete" who asks for a good formula for sizing 26s and 30s warps with potato size.

We would like to offer to "Pete" the following:

150 gallons of water.
130 pounds of potato starch
16 pounds Gum Tragacanth
10 pounds tallow—or other good softener.

Boil to 200 degrees FH. and then shut off heat. Bring to boiling temperature in the size box.

We venture to state that your inquirer would find this formula very good, and that he would find his size mixture would not congeal nor get too thick, furthermore that his warps would run exceptionally well in harness and looms and that he would get high production.

Yours very truly,

John P. Marston Co.

CAUSES OF BAD RUNNING SPINNING

All papers submitted in the contest for the best article on "Causes of Bad Spinning" must be mailed not later than Saturday, May 15. Any articles mailed later than that date cannot be accepted for the contest.

Publication of these articles was begun last week, and they will be published as rapidly as space will permit. Immediately after the last article is published, the seven judges will be asked to render their decisions and the winners will be announced.

At the time of going to press seventy-two articles had been received. The contest on spinning is proving one of the most popular we have ever conducted and we are confident that it will be of very material benefit not only to the men who entered, but to the industry as a whole.

Contest Rules.

1. Articles must not be longer than three full columns.
2. Articles must be signed with assumed names but the real name and address of the writer must be known to us.
3. The subject, CAUSES OF BAD SPINNING, will include anything that has a bearing upon the subject. It is to be assumed that the card room is running well but not necessarily making good roving.
4. Articles must be original and articles that include paragraphs or sections copied from other articles on this subject will be thrown out. The contestants and all of our readers will be requested to call our attention to any articles that show evidence of having been copied.
5. Articles will be published by us in the order received and the judges will be instructed that where two are of equal merit the decision shall be given to the one received first. It is therefore advisable to mail articles as early as possible.
6. In mentioning machinery the name of the maker can not be given. This rule will not apply to special machinery or attachments that have no competitors.
7. Articles which are received after May 15, 1926, will not be considered in the contest.
8. The contest will be decided by seven practical men who, acting independently of each other, will read the articles and give us their opinion relative to which is the best and second best. A vote for first place will count one (1) and a vote for second place will count one-half (½).
9. The article receiving the largest number of the judges' votes will be declared the winner and its writer will receive \$25.00. The writer of the article which receives the second largest vote will receive \$15.00, and of the third best, \$10.00.

The writer of the best practical article contributed to this contest will receive \$25.

The second prize will be \$15 and the third prize \$10.

Special Weaving Motions.

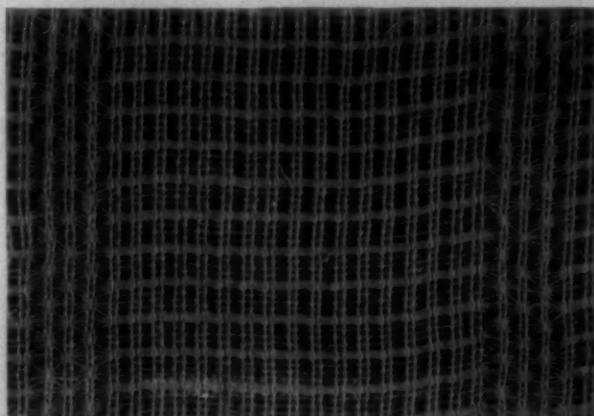
Editor:

By same mail I am sending you sample showing you a peculiar kind of woven cloth. Is this woven on a regular loom? Mill Man.

In answer to mill man I must say

that this cloth is woven on a regular loom which is also equipped with an irregular attachment. This kind of cloth belongs to the barred netting family. It is lenoed but not by a regular duped harness.

The body of the cloth is woven by a common leno harness motion.



But the fancy stripes produced, is done by two or more slide bars which work in opposition. This device was patented, I believe, by a man who was skilled in the art of weaving by special motions.

Loyal.

Effect of Moisture on Rayon

Plans are being made by the textile division of the Bureau of Standards at Washington for intensive studies of the effect of moisture on the properties of rayon and the stability or resistance of the fiber to aging. A survey is being made to learn what has been done in these directions by individual firms and to determine the methods to be followed. As soon as this is completed the staff of the division will begin its work.

Decision to undertake these two studies of rayon was reached as the result of a recent informal conference held at the Bureau between officials and some representatives of the rayon industry and of textile industries which use the fiber, regarding rayon problems.

The projects discussed at this conference were the effects of moisture on the physical and chemical properties; standard moisture regain; kind and per centage of oil to be used in manufacturing and its effect on the physical and chemical properties; uniformity and stability of the fiber, and such problems in the use of rayon as effect of cleaning, ironing, perspiration, light, etc.

Although it was recognized that all of the problems suggested deserve study, it was felt that the bureau could not undertake the complete program at one time, and the conference agreed that the first subjects to be taken up should be effect of moisture and resistance to aging as serving the greatest good at present. It was stressed particularly that the proposed project should be planned to study not only what occurs but why it occurs so that possible remedies may be found.

Georgia Mills Curtailing

Atlanta, Ga.—The textile situation in Georgia and this entire territory continues to become more unfavorable, with mills steadily curtailing, according to George S. Harris, president of the Cotton Manufacturers' Association of Georgia.

"Mills are making every effort possible to cut down production," he said. "Curtailment is generally meeting with success, according to my observations. Replies I have received from the State show that Georgia mills are following other States in reducing production and working off surplus.

"With another week or two Georgia mills will be reduced 40 per cent. They now are operating about 25 percent less than normal.

Causes of Bad Running Spinning

A series of articles contributed to a Prize Contest of this Subject

The first four articles submitted in the Prize Contest "Causes of Bad Running Spinning" were published last week. Four more appear in this issue. They are being received with unusual interest.

The writer of article Number Four, which was signed "Cyrene," failed to give us his name and address. We would appreciate it if he would write to us promptly.
—Editor.

Number Five

My ideas on spinning are based on 12 years' experience as overseer of spinning at several different mills, all of which made coarse numbers, from 6s to 16s. I have taken some jobs that were run down and shot to pieces and have always, by hard study and looking ahead for everything under my care, been able to get the job out of the rut.

Now of course, all of us know that there are perhaps a hundred things that may cause trouble in spinning. We are going to consider now a job that is running bad, or won't run at all. We decide first to examine the roving. See if it has been cut by long draft, or if the tension has been too tight or too slack. We find the roving O. K. Then we first look at the draft as it is the next place to look for trouble. There we first look at the draft of the spinning frames. We should find that for double roving the draft is not over 11 for warp yarn and 12½ for filling yarn. If the roving is single, the draft should be 8 for filling and 7½ for warp.

If we find the draft O. K., we are ready to study other conditions, looking for such faults as spindles not plumbed; rings worn badly, travelers too light or too heavy; guide wires worn so as to catch the thread as it passes through the guide wire, rolls set too close or too far apart for the grade of cotton you are running; poor skins being used for covering spinning rolls.

If the rolls are not getting the proper oil at the proper time there will be all kinds of trouble such as cockled yarn, uneven, weak, gouty yarn, in fact, bad yarn. I recommend about 100 spinning bands per pound for coarse yarn. I do not know much about fine numbers, but will say that this is the band I would use and do use.

If you adjust all the things I have mentioned above, I will guarantee that you will have a job that will run.

Of course, this is not all that will cause bad spinning, but perhaps it will help the other fellows.

Exell.

Number Six

Here are some of the causes of bad spinning. I do not claim to be an expert on spinning, but have had some experience. I am taking the roving in the creel on the spinning frame. For instance, I have to start with the roving.

Thick and thin places in roving; uneven roving; double places in roving; skewer sticks worn and broken on bottom end; skewer sticks splintered on top end; roving not the right weight or hank for the number of yarn you are spinning.

Leather worn on top covered rolls; lack of oil on top rolls; rollers not properly covered with leather, this applying to back, middle and front rolls; top rolls and steel rolls need cleaning; steel rolls with no flutes and necks and stands worn too much; roller bars and stands not set right for the stock you are using. Back saddle gone or using piece of wood in back saddles.

Roller bars worn too much; belts too slack; speed too fast; front and back saddles worn; stirrups worn; levers worn and not level; lever screws worn; thread guides worn and not properly set over top of spindles; guide boards not set the right distance from steel rolls to top of spindles; spindles not set to center of rings; no traveler cleaner on rings or rails.

Rings worn, or not the right size for the yarn being spun; travelers worn or too light or too heavy; spinning frame not level; ring rails not level; draft gears mixed or different sizes; twist gears mixed or different sizes; any other gears mixed or different sizes; different sizes of spindles; spindles dry for lack of oil; rollers and stands and other bearings dry for

(Continued on Page 20)

RAYON REEDS

On account of the ever-increasing use of Rayon (artificial silk) by Southern cotton mills, we are making a reed particularly adapted to the Rayon yarns.

Special attention is necessary to the finish on the wire used in these reeds, which finish requires approximately three times the length of time usually given to regular reed wire.

There is, however, absolutely no extra charge for this special finish as we invoice Rayon reeds at our regular standard prices.

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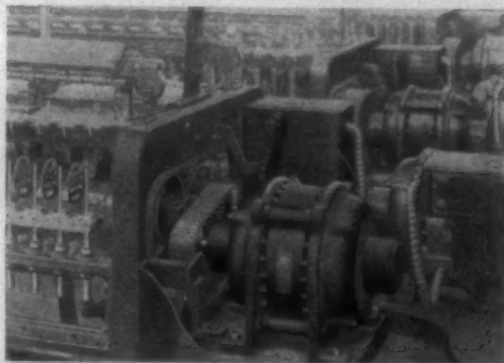
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MORSE



DRIVES

Receiver is Named for Elmira Cotton Mills, Burlington.

Greensboro, N. C.—Lyon B. Williamson, an attorney of this city, was appointed receiver for the Elmira Cotton Mills, of Burlington, N. C., in an order made by Judge Yates Webb of Western North Carolina Federal District Court. The order was filed here in office of the clerk of the court.

The receiver is authorized to continue operation of the mill in order to conserve the assets and to take an inventory of the property which consists of a mill building, machinery, rayon and cotton cloths, in process of manufacture, and tenement houses. In the petition filed asking for a receiver, the value of the property was estimated at \$600,000. It was stated that the company owes more than \$200,000.

Condition of the cotton goods market is held responsible for the plight of the company. E. C. Holt is president of the company and the filing of the petition asking for appointment of a receiver was authorized at a meeting of the board of directors of the company.

Judge Webb heard the petition on May 8 at Shelby, N. C. It is held as true that the assets should be conserved and not placed on the market in a lump in order that the claims of creditors be protected and for that reason the board of directors and the judge favor conservation of the assets through appointment of a receiver. Bond for Mr. Williamson, as a receiver, was set at \$15,000.

Entertainment Features of Atlanta Meeting

Ladies visiting the annual convention of the American Cotton Manufacturers' Association in Atlanta on May 18 and 19 will find a complete and elaborate program of entertainment arranged for their benefit.

On Tuesday morning, beginning at 9 o'clock, there will be a reception committee on the mezzanine floor of the Atlanta-Biltmore hotel, which will be headquarters for the convention, which will register all ladies attending the meeting and aid them in every way in making their plans for the convention.

Tuesday afternoon at 1 o'clock all visiting ladies will be taken on a sight-seeing tour to Stone Mountain where the Confederate memorial is now being carved. One of the great parlor car coaches of Dixie Coaches, Inc., has been chartered for the trip, insuring ample room for all ladies attending the meeting.

Tuesday evening at 8 o'clock while the gentlemen are having their annual banquet in the Georgian Room of the hotel, the ladies will have a banquet of their own in the Pompeian Grill Room, and indications are that the ladies' banquet will be the best one of the two.

Among the features of this banquet, according to the committee in charge, will be music by Vandiver's Collegians—the well-known dance orchestra of Emory University—and by the Emory University Quartette,

selected from the Glee Club, which will tour Europe this summer. Miss Tootsie Dunbar and Master Charles Kitchens, both juvenile stars known throughout the South, will perform as a part of the entertainment program. And the Spanish Operetta Company from Girls' High School will sing several selections during the banquet.

And at Wednesday noon, at the close of the final session, both ladies and gentlemen will be guests of the Atlanta manufacturers at a buffet luncheon to be given in the Pompeian Grill Room of the Biltmore, thus rounding out the entertainment features of the convention.

Mrs. George S. Harris is chairman of the local entertainment committee which has arranged the ladies' program, and associated with her are Mrs. L. M. Jordan, Mrs. Louis Elsas, Mrs. Norman Elsas, Mrs. Chip Roberts, Mrs. George W. Forrester, Mrs. W. M. McLaurine, Mrs. J. W. Tift and Mrs. W. G. Broadfoot. All are wives of prominent Atlanta cotton manufacturers.

Textile Hall Directors Are Elected for Year

Greenville, S. C.—At a recent meeting of the directors of the Textile Hall Corporation, which is now self-perpetuating under its new charter, the following directors were elected to serve for the ensuing year: John W. Arrington, W. W. Carter, J. F. Gallivan, B. E. Geer, Edwin Howard, John A. McPherson, J. E. Sirrine and William G. Sirrine, of Greenville, S. C.; Cason J. Callaway, LaGrange, Ga.; George H. Lanier, West Point, Ga.; L. W. Robert, Jr., Atlanta, Ga.; Donald Comer, Birmingham, Ala.; Fred O. Tyler, Anniston, Ala.; Robert I. Dalton, Rogers W. Davis, B. B. Gossett, J. Norman Pease, of Charlotte, N. C.; S. F. Patterson, Roanoke Rapids, N. C.; Carter Lupton, Chattanooga, Tenn.; H. A. Ligon, Spartanburg, S. C.

Plans for the seventh Southern Textile Exposition are being rounded into shape. The application for space have been so great that the steel building to be erected has been twice enlarged. It will measure 60 by 200 feet, and will be immediately alongside the main building, reached by three wide galleries 15 feet long.

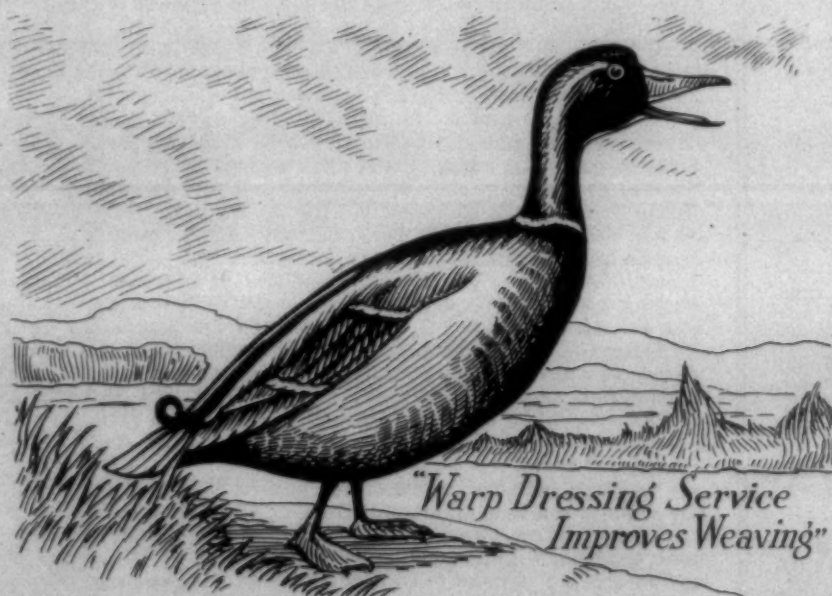
Some changes have been made in the balcony materially improving facilities in that part of the building. The tier of seats on the Washington street side have been removed, the resulting space floored over on the same grade as the stairway landings. A wide door overlooking the second floor has been cut into the mezzanine room. This will be used for a men's club room. It will be exclusively for the use of visiting mill presidents, superintendents, overseers and other sub-heads of work. Exhibitors will also have cards.

The following advisory committee has been named: Milton G. Smith, chairman, David Clark, W. R. C. Smith, V. E. Carroll, C. Randolph Bennett, A. H. Cottingham, M. O. Alexander, T. A. Sizemore, W. P. Hamrick, S. M. Beattie, W. P. Porcher, H. R. Fitzgerald.

ARCY—

A Means of Getting The Most Value From a Dollar's Worth of Starch

ARCY is a product used in warp sizing and cloth finishing for converting ordinary thick boiling pearl starch into a soluble form, the solutions of which are transparent and remain fluid at lower temperatures.



Trademark Reg. U. S. Patent Office

The use of Arcy results in a smooth finish yarn that does not have a saw-tooth feel because Arcy completely liquifies the starch.

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TRY THE COOL PLACES

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Unexcelled Quality of Work

THE MERROW MACHINE COMPANY

20 Laurel Street, Hartford, Conn

CAUSES OF BAD RUNNING SPINNING

(Continued from Page 17)

lack of oil; spindles speed too great; doffers leaving too many ends down when frame is doffed; frames run too long before doffing; frames not started right after they are doffed; spindle rails not properly set from guide boards; separator blades broken and patched; separator blades hitting sampsons when turned back to doff frame; separator blades not lined up; separator blades not set between rings; ring rail and separator lifting rods need cleaning; fanning or sweeping lint on frames while running; bobbin not the right size or different sizes; bobbin high on spindles; not enough humidity; yarn too light or too heavy.

Splintered rods allowing roving to run over; under clearer rolls crooked; worn or in need of new cloth; (Most mills buy new ones) roving traverse rod making too short a stroke on leather rolls; or making too long a stroke on leather rolls; lever weights too light or too heavy; not enough weight or too much weight on ring rails; bands too slack; band too light or not right size; spindle base worn; spindle points worn on bottom; bolsters need packing; bolsters need adjustment; bolster steps worn; top clearers need cotton picked off of cloth; high end piecing when frame is started after being doffed; putting too much yarn on bobbin as frames fill; rings cutting yarn on bobbins because they are run so the yarn hits the ring; bobbin of yarn too small; not enough yarn on bobbin as frames fill; too much twist or not enough twist in roving; too much or not enough twist in yarn.

Sometimes the way the help is managed causes spinning to run bad. This is the case when spinners are given more work than they can keep up. Run what you can run well and stop all work that you can't run well. Don't have the work represented; the company is looking for evidence, give it to them.

If I were to take charge of a spinning room, the first thing I would do would be to get the superintendent to let me give the machinery a general overhauling, that is if it needed it. I would see that the gears were not mixed, the right travelers put on if they were not being used. All overseers of spinning have different ideas on travelers. I would have spindles and other parts properly oiled and then I would proceed to remedy the defects have just mentioned just as fast as I could get to them. I would hold right there and when things began to go bad I would fix them or have them fixed. Have a system for everything that comes up. Then I would sit steady in the boat and let her rock.

Of course, cotton is the main thing in having good running spinning. If you start it right and have everything right all the way through; it is going to come out right. Some mills will not give you good stock to run, but still they want perfect work. Taking it for granted that all the causes of bad work had been remedied, the most likely cause of trouble would be too light or too heavy yarn and not enough humidity. I never have enough humidity except when it is raining. Travelers may need changing or may not be the right size or the cotton may be bad. The main thing in running a spinning room is to keep the machinery in good condition, clean and well oiled, bobbins off of the floor, and the floor clean.

Oil is the life of machinery and the cleaner you keep things the better they look and the spinning will run better. Give the machinery a general overhauling and cleaning every six months. Tear the machinery down and fix everything that needs attention. Of course you will have to look after all the small things that will be coming up daily and have some remedy for them.

You will note that some of the causes of bad spinning I mention did not come in rotation. I just put them down as they came to mind.

What I know about spinning I got by experience and hard work. I hope someone will be benefitted by my article. I am always glad to help anyone when I can and to do everything to make spinning run better. The mills are looking for quality and then quantity.

You can't take a spinning frame and make a card of it. There are not many cotton mills that have enough pickers, cards and drawings. Machinery here is the secret of good running spinning, right in these three processes provided all the other details are fixed as I have said before. Start right.

Pee Dee.

Number Seven

We will assume that the roving coming into the spinning room is all right and then consider some of the things in the spinning room that make bad work.

First, see that the spinning frames are level, and lined, the spindles plumb and the guide wires properly set, and that the draft is not too long for the stock and hank roving being used. See that the proper size traveler is being used for the number of yarn, that rings are the right size and if they are worn in waves from long usage, see if they can be turned over and the good side used. See that all the traverse guides are getting their full and proper stroke, that all stands and rolls are being properly oiled and cleaned. See that draft and lay gears are suited for the yarn being spun and that all top clearers are cleaned before they get too full and begin to pinch off and go through and break the ends.

See that roving back boards and guide boards are clean and that bottom steel rolls are cleaned out. In fact, keep the room as clean as possible, even the floor. Do not allow clean cotton to be thrown on the floor. Be

(Continued on Page 28)

HOUGHTON

A COMMON SENSE TEST

Not Originated by the Houghton Research Staff

A SUPERINTENDENT of the old school, once said to a Houghton Man, "I suppose those fellows in the laboratory are all right in their way, but when they tell me what is in a cotton softener they do not tell me much. I don't want to know what is in the stuff, but how the stuff will function. If a softener leaves the size on the exterior of the yarn to flake off in the weave room, what do I care about how much water there is in it? If it turns rancid on the retailer's shelf, what has its composition in our laboratory to do with it? I test my own softeners. I take a piece of paper without gloss and I drop a drop of the softener in the center, being careful to agitate the softener well before making the drop. Then I watch the results and if the softener spreads itself evenly over a fairly large area, in a reasonable time, I conclude that the softener has merit; if on the other hand, the softener separates and leaves several distinct demarcations, showing that the paper has filtered the softener so that it has separated, I condemn it."

We have seen many a worse test than that one.

Some years ago we made up about ten

softeners and with the aid of members of the Houghton Research Staff and the cooperation of some half dozen mills, we had them all tested out in a practical way, over a period of several months. The result of those tests was that HOUGHTON'S WARP CONDITIONER was selected as the preferable. Those tests were made without prejudice. We would have adopted as Houghton's a principal softener, any such other formula as might have been selected by those tests. The one feature which HOUGHTON'S WARP CONDITIONER exhibited better than all others was that of penetration. Ability to blend with and carry the size into the warp is the one outstanding feature of quality in HOUGHTON'S WARP CONDITIONER.

It is this feature which causes such a marked reduction of breakage of the warp at the beam. You cannot add material and permanent strength to the warp if the water content of the conditioner is all that penetrates, because the water will evaporate. The water should act as a carrier or else it is a mere adulterant. It is the oleaginous or lubricating properties which remain in the warp that make for the permanent effect of strength and softness.

You may make a trial of HOUGHTON'S WARP CONDITIONER on your own terms.

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Oils and Leathers for the Textile Industry

SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

Published Every Thursday By

CLARK PUBLISHING COMPANY
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THURSDAY, MAY 13, 1926

DAVID CLARK
D. H. HILL, JR.
JUNIOUS M. SMITH

Managing Editor
Associate Editor
Business Manager

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ADVERTISING

Advertising rates furnished upon application.
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Both Editors Sick

WHILE David Clark was in the hospital recovering from the removal of his tonsils, Associate Editor D. H. Hill had an attack of sinus trouble and we are therefore without the services of an editor this week and our page this week will be the result of work of shears rather than of pen.

Mr. Clark was able to be in his office for a short time Wednesday and will be back on the job next week.

On last Thursday night, he addressed the Carolina Council, which is composed of the superintendents, overseers and second hands of the Carolina Cotton and Woolen Mills at Draper, Spray and Leaksville, but his operation has prevented the writing of the story of his visit to the mills in those towns.

Casablancas Corporation To Exhibit Frame in Charlotte

WE have been informed by the Casablancas Corporation that the spinning frame which they recently exhibited at the Textile Exposition at Boston, Mass., will be shipped to Greenville but that en route it will be stopped in Charlotte for a few days and exhibited in operation.

The place and date of its exhibition in Charlotte will be announced later, but it will probably be about May 20th.

There are several long draft spinning frames on the market and almost every one is interested in them.

The exhibition of the Casablancas system in Charlotte will no doubt draw a large number of visitors.

We understand that the Saco-

Lowell Shops will at a later date bring both their La Blan Roth and their four roll systems to Charlotte and exhibit them at their offices on Mint street.

Shorter and Shorter

THE following newspaper dispatch indicates that dresses are to be still shorter:

PARIS.—Skirts are to be shorter than ever. The rule is that the hem shall only reach the middle of the knee cap when the wearer is standing.

When she moves or is seated the skirt becomes even shorter, and to combat this many Paris houses are introducing a new type of undergarment similar to theatrical tights. It is woven all in one with the stockings and reaches to the waist. In many cases it has embroidered or lace clocks matched by an inset garter above the knee, or the garter is carried out in brilliants or real jewels, skilfully woven into the material during the making.

It is a peculiar situation that while the girls are uncovering their legs the boys and even the very young boys are covering theirs more.

The size of stylish pants has now reached the point that a young sport has to take two steps with the same foot in order to make the pants leg move forward.

Franz Roessler.

Franz Roessler, chairman of the Board of directors of the Roessler & Hasslacher Chemical Company died recently at his home in New York. Mr. Roessler, with the late Jacob Hasslacher, founded the company in 1895. Since that time it has become one of the most important manufacturers of chemicals in the country.

Carolina Cooperative Council.

Spray, N. C.,
May 11, 1926.

Mr. David Clark, Editor,
Southern Textile Bulletin,
Charlotte, N. C.
Dear Mr. Clark:

We want to thank you for the very practical and splendid talk which you gave our council members last Thursday evening. It was just the kind of message that was needed—full of optimism, good cheer and common sense.

We were also very glad to have you in our community and hope that you saw some things that interested you. We further hope that this will not be your last visit.

We are sending you within the next few days one of our axminster rugs, which we hope that you will accept as a token of our appreciation of your trip up here and your message to us. We are proud of our axminster products and we hope that the particular axminster which we are sending you will be entirely satisfactory.

Very truly yours,
Carolina Cooperative Council.
By Luther H. Hodges, Sec.

The Cotton Manufacturers' Association of N. C.

Charlotte, N. C.,
May 10, 1926.

To Members of the Cotton Manufacturers' Association of North Carolina:

Our annual meeting has grown in popularity from year to year, and we are anticipating an unusually large attendance this year.

It is always our pleasure to have with us not only the members of this Association but their families and friends. A special invitation is extended to all business associates to be present during the convention.

The banquet, which will be held on the evening of Friday, June 25th, is always an enjoyable event.

If you have not already made your reservation, please do so immediately direct to the Grove Park Inn, Asheville, N. C. Rates American plan only—\$10.00 per day for single room with bath—\$8.00 per day per person for two people in double room with bath.

Very truly yours,
Hunter Marshall, Jr.,
Sec.

Cotton Cloth Imports

Whatever may be the cause of the troubles being experienced in the cotton mills of this country, it is a fact that little complaint can be made about the extent of foreign competition. Figures recently published by the Department of Commerce show that our receipts of such goods during the first quarter of this year are much smaller than was the case during the correspond-

ing period last year. The totals in square yards are respectively a little less than 19,000,000 and something over 46,000,000. In the whole list there are only one or two items that show an increase, and most show marked decline. Only the finer grades of goods reveal increases, and these normally comprise but a very small portion of our imports.

The truth of the existing situation is that the textile industries of the whole world are suffering in much the way that ours are doing and in part for the same reasons. Plants were overextended during the war and vast sections of the world population are not as yet in a position to consume goods on the scale that was customary before the outbreak of war in 1914. In addition, costs are high and raw materials relatively dear. Those who constantly advocate tariff protection of an extreme sort as a remedy for situations such as that in which our cotton mills find themselves today can hardly find in these figures and facts much to support their arguments.—New York Journal of Commerce.

Be Curious and Be Successful

Some executives in the cotton mill may wonder who others in the business are making more progress, and why others manage to solve more problems easier. Do we ever bethink why another seems to have greater success?—do we try to probe for the real reasons?—do we, in fact, try to make the most of every opportunity everywhere about us?

Some time ago a well-known superintendent told the writer that he attributed much of his success to the fact that he always was curious—he wanted to know the reasons in back of things. He always wanted to know more, and why. And it is his penchant for investigation, followed by experimentation, that is enabling him to master difficulties for his employer's so easily, incidentally increasing the quantity and improving the quality of the plant's output.

Such opportunity, as his experience indicates, is before every cotton mill executive, no matter in what capacity. Any man or woman who has charge of employees in the cotton mill may be satisfied with the way things are running; but the question is: "Do we give a thought to the future?" Even though the force is operating satisfactorily now, what will the times to come promise?—is there assurance that its operation will be maintained just as well?

For that reason we have experimentation. Experimentation enables us to find out newer things; these may be new to us, yet old in others' eyes. Discovery, moreover, often follows painstaking search and experiment, providing that the work has not been in vain and really worthwhile. Cotton mill executives assuredly can afford to experiment, for thereby they find things out, representing profits in divers ways.—Frank and Faulhaber, in Fibre and Fabric.

Personal News

J. P. Faulkner of Eatonton, Ga., is now night overseer of weaving at Opp Cotton Mills, Opp, Ala.

R. D. Dillard has resigned as overseer of cloth room at the Abbeville Cotton Mills, Abbeville, S. C.

J. W. Able has been promoted to overseer of cloth room at the Abbeville Cotton Mills, Abbeville, S. C.

A. G. Giles, of Behmont, N. C., has become night second hand in winding at the Priscilla Mills, Randle, N. C.

E. A. Thompson has resigned as superintendent of the Pell City plant of the Avondale Mills, Pell City, Ala.

Joe Adams has been promoted second hand to overseer of spinning at the Pell City plant of the Avondale Mills, Pell City, Ala.

J. T. Munds has been promoted from overseer of spinning to superintendent of the Pell City plant of the Avondale Mills, Pell City, Ala.

W. R. Brewer, of Williamston, S. C., has accepted the position of overseer of carding at the Jackson Mills, Iva, S. C.

W. L. Erwin has resigned as overseer of cloth room at the Ware Shoals Manufacturing Company, Ware Shoals, S. C.

W. H. Callas, of Newberry, S. C., has become overseer of cloth room at the Ware Shoals Manufacturing Company, Ware Shoals, S. C.

R. L. Jackson has resigned as overseer of carding at the Jackson Mills, Iva, S. C., and accepted a similar position at the Thrift plant of the Kendall Mills, Paw Creek, N. C.

S. W. Griggs, formerly overseer of carding at the Aponaug Manufacturing Company, Kosiuskos, Miss., has accepted a similar position at the J. W. Sanders Cotton Mills, Starkville, Miss.

Bertrand R. Clarke, vice-president and sales director of the Tubize Artificial Silk Company of America since shortly after its organization in the spring of 1921, severed his connections with the company at the week-end to accept the presidency of the Industrial Rayon Corporation and its subsidiary, the Industrial Fibre Corporation of America. Before coming to Tubize, Mr. Clarke was with the Guaranty Trust Company.

George Cocker Honored.

George B. Cocker, president of the Cocker Machine and Foundry Company, of Gastonia, was honored at the meeting in Macon, Ga., of the Southern Metal Trades Association by being elected president of the body for next year. Mr. Cocker organized the Cocker Machinery and Foundry Company and by his ability has demonstrated that textile specialties can be successfully made in the South.

5,053,000 Bales Final Indian Cotton Estimate.

Washington, D. C.—The final estimate of the Indian cotton crop for 1925 is 5,053,000 bales of 478 pounds net, as compared with a crop of 5,097,000 bales for the preceding year, according to a report issued by the Department of Agriculture. The five-year average for the years ended with the 1924-25 season was 4,086,000 bales.

Superintendents and Overseers

Cliffside Manufacturing Company. Cliffside, N. C.

43,000 Spinning spindles; 1800 looms
M. HendrickSuperintendent
C. C. TateCarder
J. L. RhinehardtSpinner
Boyace BridgesWeaver
S. S. ThompsonCloth Room
Irvin MooreDyer
Carry BlantonMaster Mechanic
Recent changes: Assistant superintendent. Plato Hawkins, assistant superintendent.
John Fry: Beaming, slashing and tying-in and drawing-in.

Lavonia Cotton Manufacturing Co. Lavonia, Ga.

8,000 spinning spindles; — looms
J. W. PittsSuperintendent
H. A. HendricksCarder
C. E. RobertsSpinner
O. J. JohnsonDyer
E. M. BratcherMaster Mechanic

Balfour Mills, Inc. Balfour, N. C.

W. E. HammondSuperintendent
C. E. GaillardCarding
J. C. ThomasSpinning
M. D. LeslieWeaving
M. H. WaldenCloth Room
C. R. StaggsMaster Mechanic
W. E. HeatonChief Engineer
E. Smyth BlakeOutside Foreman
Night.
W. R. ShoultsCarding
W. C. FreemanSpinning
O. M. PageWeaving
J. H. LollisMaster Mechanic

American Yarn & Processing Co. Mount Holly, N. C.

Two warp mercerizers — capacity 200,000 pounds weekly.
Burton F. MitchellSuperintendent
T. B. FitzpatrickMercerizing
P. H. RobertsGen. Overseer
Marvin JohnsonQuilling
D. O. FarrisWinding
C. T. WilliamsNight Overseer
M. L. WillisChemical Dept.
S. E. HunsuckMaster Mechanic
J. S. JonesOutside Foreman
Harry PriceShipping Clerk
Adrian BeatyPaymaster

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A DISTINCTIVELY SULPHONATED C. P. CASTOR OIL
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These facts explain concisely the *preference* for AMALIE SULPHO TEXTOL OIL among America's foremost dyehouses.

Adapting itself *readily* under varying dyehouse conditions, our product gives to the user an absolute safety for quality production.

The following vital reasons tell you why AMALIE SULPHO TEXTOL OIL will fit in *profitably* with your dyehouse requirements—

A Very High Content of Combined Sulphate gives it an unusual degree of solubility, forming a *clear* solution in every concentration with either hot or cold water.

Being *acid proof* and *lime proof*, it resists *extremely hard water*, acids (also inorganic) and high temperature dye liquors. It will not separate out of solution and form *insoluble scums* in the dye kettle.

Glauber's salts, added to the dye bath, even in large amounts, will not "break the oil." This is extremely important in certain processes of dyeing.

Two added features of AMALIE SULPHO TEXTOL OIL are its *freedom* from stickiness and its *dependability* to leave *no objectionable odors* on the goods due to rancidity. These are common complaints with the usual sulphonated castor oils, turkey red oils, etc.

**For Best Dyeing Results Insist On
AMALIE SULPHO TEXTOL OIL**

Its Cost is Less

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*Manufacturing Chemists to the
Textile Industry*

114 Fifth Avenue

New York

L. SONNEBORN SONS, INC., NEW YORK, N.Y.

MILL NEWS ITEMS OF INTEREST

Harlingen, Tex.—The Valley Cotton Mills have been incorporated here by S. F. Ewing and L. H. Thompson.

Charlotte, N. C.—The Stuart Mills have purchased additional silk winding equipment from the Sipp Machine Company, Paterson, New Jersey.

Calhoun Falls, S. C.—The Calhoun Mills are remodeling and enlarging a number of the cottages in their mill village.

Charlotte, N. C.—Reports received here indicate that the Globe Yarn Mills, of Fall River, Mass., will be moved to a Southern location. The plant has 33,000 spindles making tire yarns.

Gaffney, S. C.—The Vogue Mills, organized here some time ago, will soon begin the manufacture of cotton and rayon spreads. The mill has 90 automatic jacquard looms. They will sell the output through Wilson and Bradbury, New York.

Bowie, Texas.—Construction work is progressing rapidly on the Bowie Cotton Mills and expect to begin operations in July. When the mill is finished it will have 5,000 spindles and broad looms on cord tire fabrics.

LaGrange, Ga.—The contract will be let May 14 for the construction of a 10,000-spindle waste mill for the Unity Spinning Company. Plans for the project now are being drawn at the office of J. E. Sirrine & Co., mill engineers, Greenville, S. C.

Newberry, S. C.—A curtailment program was inaugurated at the Newberry Cotton Mills. According to President Z. F. Wright, the mills will close all day Saturday and half of Friday each week until further notice.

Stanley, N. C.—The Lola Gingham Mills, which were sold at trustees' sale last week, as noted, will be placed in operation within a short time. They were bid in by J. F. Anderson, of Jersey City, who represented Hesslein & Co., of New York. The mill will probably be operated on rayon mixtures.

The bid price was \$120,000 and has not yet been confirmed by the court.

Atlanta, Ga.—A material amount of curtailment has been planned by some of the Georgia mills. Last week, the Exposition Cotton Mills, of this place, placed operations on a basis of four days per week. The Moultrie Cotton Mills, at Moultrie, Ga., will curtail about 25 per cent during May, and it is stated by officials of this organization that the ratio of curtailment will be increased in June, unless conditions improve.

Cliffside, N. C.—Plans were recently completed at the office of J. E. Sirrine & Co., Greenville, for the bleachery to be built by the Cliffside Cotton Mills. This plant will be 80 by 200 feet in dimension and will be two stories in height. It is being built by the mill management, no contract being let. Work will be rushed as rapidly as possible.

Sand Springs, Okla.—C. R. Miller Manufacturing Company of Oklahoma, National Bank of Commerce building, Tulsa, reported let contract to W. R. Grimshaw Construction Company for constructing \$300,000 addition to bleachery, 82x368 feet; concrete construction; brick walls, maple floors.

Greer, S. C.—Approximately 1,200 textile workers in the three cotton mills located here will be affected by the 25 per cent production curtailment program, it has been estimated. Victor mill, the largest of the three plants, employs about 700 workers; Greer Mill, 300; and Apalache, about 200, it was said. The curtailment program will be general in South Carolina's many plain goods mills, it was understood.

Just how long the 25 per cent curtailment will continue is not known. Closing at 6 o'clock on Thursday afternoons, Victor, Greer, and Apalache Mills will be idle until Monday morning, entailing a loss of a day and a half to operators.

Milstead, Ga.—The new weaving equipment being installed at the Milstead Manufacturing Company, consists of 12 new Crompton & Knowles broad looms.

Chattanooga, Tenn.—Argument in the case of the Holston Manufacturing Company, against the Cotton States Hosiery Company was heard by Chancellor Garvin of this city, and the case was taken under advisement.

The bill was filed to collect a debt of \$20,000, but later was turned into a general creditor's bill to wind up the defendant company. This case has been pending in Chancery Court for several months. The complainants were represented by Strang & Fletcher, of this city, and L. N. G. Baker, of Knoxville, and the defendant by Miller, Miller & Martin, of this city.

Burlington, N. C.—Order by Judge Webb appointing a receiver for the Elmira Cotton Mills, of this place, pending adjudication in bankruptcy, was received Monday at the office of the clerk of the United States Court, Greensboro.

This order was made upon voluntary petition and such petition was authorized at a meeting of the directors of the mills company. It is stated in the petition also filed here that the mills owe \$200,000 and are unable to pay it, that the property it worth \$600,000 and a receiver was wanted to conserve the assets, not possible if the property should be thrown on the market now.

Lynn B. Williamson, of Greensboro, was named receiver by Judge Webb and his bond set at \$15,000. He is authorized to operate the mill as usual, to take an inventory and to conserve the assets for the creditors. E. C. Holt is president.

Burlington, N. C.—Another 100 machine hosiery manufacturing industry will be in operation here within two weeks, in one of the Fonville buildings, on North Main street.

C. E. Fogleman, John Shoffner and J. T. Black, proprietors of the Standard Hosiery Mills, Inc., at Alamance, and John Moser and Clifton Elder will be named in the articles of incorporation, as charter members of the new organization and leading stockholders.

All of the machinery has been bought and should be delivered here within a week, Mr. Fogleman said.

According to Mr. Fogleman this new mill will make a half hose, for which the demand today very greatly exceeds the production. He said also that this mill is entirely a new and separate one from the one at Alamance, except as it includes stockholders in each. The Standard will continue to be run in Alamance, a village four miles of here on Alamance creek.

THE FARISH COMPANY

COMMISSION MERCHANTS

100 WORTH STREET

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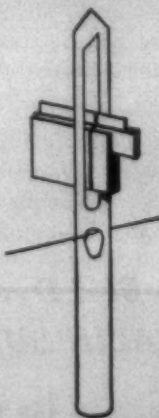
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Victor Montgomery Blames Curtailment Need on Speculators

Spartanburg, S. C.—At the conclusion of an address by former Gov. Frank O. Lowden, of Illinois, in which he urged organization of farmers to preserve the American standard, Victor M. Montgomery, president of the Pacolet Manufacturing Company, declared that present cotton market conditions reflect the need of stabilization in prices.

"We have bought cotton to run our mills at 22 cents. We can buy now for 17 cents and we can buy it for delivery next December and January for 16 cents. The speculators will sell it for that price. They hope to frighten the farmers so much that they can buy it then and sell it to us at a profit. Their operations have resulted in the price of cloth being lowered so much we can't sell our product now at what it costs us to make it. We already have posted notices that we can run only four days a week after May 1, and if we were not for the people who depend on us for their living, we would close the mills entirely."

Mr. Montgomery said the mills are willing to pay enough for cotton to permit the farmers to make a comfortable living, and that it is not the price, but the fluctuations which work hardships on the manufacturers.

Hosiery Production Shows Gain

Washington.—A total of 5,167,732 dozen pairs of hosiery, all classes, was produced during March, compared with 4,687,545 dozen pairs in February, according to the regular monthly hosiery production report made public by the Bureau of Census, Department of Commerce, based upon returns received from 298 identical establishments, representing 378 mills.

Production during March, in dozen pairs, was as follows: Men's full-fashioned, 56,329; men's seamless, 1,777,617; women's full-fashioned, 1,075,111; women's seamless, 1,188,671; boys' and misses' all styles, 568,595; children's and infants', all styles, 399,996; athletic and sport, all styles, 101,413.

Orders and stocks for March were as follows: Shipments during month, 5,070,465; finished product on hand at end of month, 9,623,939; orders booked during month, 5,074,173; cancellations received during month, 223,237; unfilled orders on hand at end of month, 8,011,194.

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Says Mill Atmosphere is Good

Greenville, S. C.—Investigations which have been conducted recently by the government into the atmospheric conditions at Woodside Mill for the purpose of determining what effects they produce upon the health of the workers show that the air breathed by workers in the tex-

tile industry is unusually free from injurious foreign matter. The impression, inadvertently created by a newspaper article appearing recently, that harmful gases are found in textile mills, according to a statement given out by J. J. Bloomfield, chemist and sanitarian of the United States Public Health Service, who has been sent here to analyze the atmospheric conditions of cotton mills.

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"Textile mills in general contain no injurious gases of any sort, and the Woodside Mill is no exception to this rule," Mr. Bloomfield stated in a communication to the department. "In fact, our preliminary findings show that the atmospheres of the workroom of the Woodside Mill are quite wholesome and free from injurious matter."

Plans for Rayon Plant

Lockwood, Greene & Co., engineers, builders of the American Bemberg Corp. plant and other important rayon factories, have a new contract to construct a plant in the South, according to New York reports.

Speculation regarding the identity of the company placing the contract was lively in New York rayon circles and centered on two companies—the Industrial Rayon Corp., of Cleveland, and the Hollandsche Kunstzijde Industrie, of Breda, The Netherlands. It also was regarded possible that the contract might be for the construction of a second unit of the Bemberg corporation at Johnson City, but as the Bemberg officials have insisted they would not commence building the second unit before the first unit begins to operate, this was not likely.

Another possibility is that the British Artificial Silk Co., Ltd., is the company which will build. G. S. Ferdinand, managing director of the English company, which operates a plant at Sidcup, Kent, and distributes in this country through the Hird Trading Co., was in the South last autumn, looking for a site, and it is known he was in the vicinity of Huntsville, Ala., where the local Chamber of Commerce announced recently that Huntsville might be chosen as the location of a new rayon plant.

Market leaders, however, are more inclined to believe that it is the Industrial Rayon Corp., or the Dutch company, the "Breda," which plans the new factory. Both have announced they intend to build in the South.

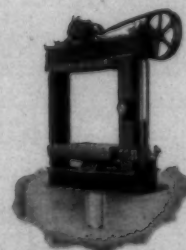
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Bleaching of Rayon

(Continued from Page 8)

sisting of a warm oxalic acid solution (40 degrees C.), 2½ to 3 per cent olive oil, 3 to 5 per cent gelatine, and from 7 to 8 per cent acetic acid, for twenty minutes. The material is then whizzed and dried without any previous or further wash-off.

In treating the third type of artificial silk waste we have to deal with a mixture of already bleached and raw silk, and there may also be colored material present. Some of this color may be removed in the bleaching, which is usually shorter than the one already outlined, say three to six hours, according to the bleaching which the fibres may have already undergone. Two to 2½ grams available chlorine will probably be sufficient strength of liquor to use.

The fourth type of artificial silk is probably the worst to deal with, and involves the preliminary removal of dirt, dust, etc.

The material is then kiered with a liquor consisting of 3 per cent calcined soda, 1½ per cent soap, and from 3 to 5 per cent verapol or other suitable fast solvent, and at a temperature just under the boil. As before, the solution is pumped continuously through the kier and material in it. The temperature is most important both from the point of cleansings as well as fibre strength results. After kiering, the bleaching operation with hypochlorite is carried out as before outlined. It is not always possible to get a good white with this fourth class of waste after the hypochlorite bath, due to the incomplete removal of some impurities. Subsequent washings improve the product up to the point of full satisfaction in whiteness, however, and an

even better method is first to remove all mineral oil after the first preliminary process and before the bleaching proper. Textile Argus.

Enlarge Plant

A steady increasing volume of business has necessitated another addition to the plant of the U. S. Gulla Percha Paint Co., Providence, R. I., makers of the well-known Barreled Sunlight.

This addition maintains the record of a major building operation every other year during twenty years occupancy of the present site.

Southern Spinners' Bulletin

The weekly bulletin of the Southern Yarn Spinners' Association says: "The market remains quiet with trading confined to small lots for prompt deliveries. Prices remain at

about the same as last week's level. The development of the strike situation in England is being watched with interest. Already it has affected the cotton market, and, if continued, is likely to have a material effect on both yarn and cloth prices.

Consolidated Textile Curtails to 50 Hours.

Lynchburg, Va. — Six working hours on Saturday at the textile plant here of the Consolidated Textile Corporation were lopped off of the week's working schedule beginning last Saturday, owing to lax conditions in the textile industry.

Five hundred and fifty hands will be affected by the time cut. The plant had formerly been working 56 hours a week, or 10 hours every day except Saturday. The new schedule will call for 50 working hours a week.

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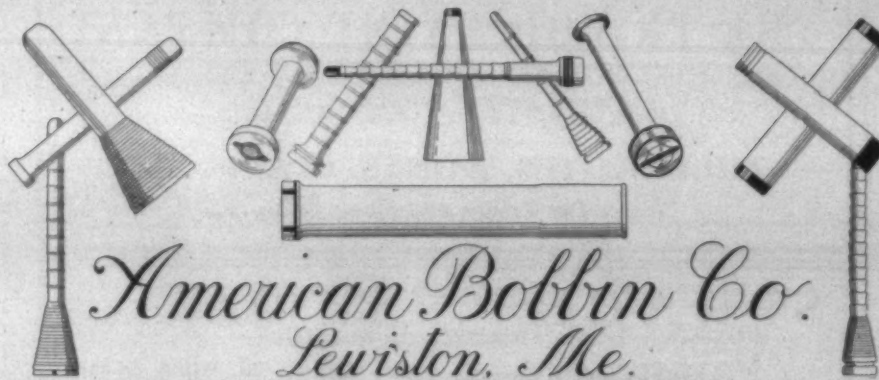
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Keep On Keeping On

(Bibb Mills Recorder)

In the Bibb Family there is a slogan that has been in general use for some years. It was suggested by the beloved Chairman of the Bibb Family has established records in various lines. "Keep on keeping on" is the inspiration of the Bibb at all times and whenever we find our slogan used elsewhere, our interest is immediately aroused. Writing as "the occasional preacher," a contributor to the New Way, a California, recently had the following to say:

King Saul, we have understood, was subject to fits of black gloom during which he would feel, apparently, like committing murder for no provocation or for trifles that at any other time he would not have noticed. We are not told when these fits began to come upon him, nor whether he made any fight against them. He seems to have sat down under, let them sweep all over him just suffered till they had spent their force, and the sky, for the time, was once more clear.

When they first began, he probably did struggle, but got hopeless, thinking that his efforts produced no result.

As a boy he doubtless had teachers in the art of war—war with external enemies, that is. Evidently no one took him in hand in the matter of war with internal enemies. Yet there must have been a few wise old prophets about, who could have told him the main essentials of internal warfare, how it should be conducted, the way to insure final success, and what were the opposing forces.

For if the young man had ever put up any fight whatever against his black acts he must have known that he—his better self—stood on one side and they—his worse self, no properly himself at all—on the other: that his nature, in fact, like every man's was dual, one element tending one way and one the other, one to light and one to evil and darkness.

So if he made a fight at all against his dark-loving part and got beaten so that the blackness and evil continued in occupation for as many hours or days as it chose, he seems to have called in no one with wisdom enough to say to, "My boy, keep on keeping on."

Maybe he had "kept on" to some extent, had struggled against some early few of his visitations; but, finding no result, had ceased his efforts and resigned himself to being beaten, taking the evil thing as a necessary phase of his very self.

There was something he never knew, evidently; namely, that if he had put up ever so little a fight every time against the enemy the enemy would at least have been prevented from getting any stronger whilst he himself, his will, would have been getting stronger. Though for a long time there might have been no result to see—a defeat just as usual.

Three or four men are trying to shove a railroad-truck up a siding. No result not a stir. They call in another man—and another. Still nothing to show for all the effort.

Then another comes up, adds his bit and the car begins to give.

Saul—if the case was as we suggest—never understood that every renewed struggle against his enemy was like this calling in of another man to help with the car, creating another bit of will to reinforce the will he was already using, making it stronger and more subtly active throughout his nature. Time and gain, no result. But at last the final necessary addition. Three cheers! The car actually dislodged and on the move!

Keep on keeping on. The enemy doesn't get any stronger and you do—if you keep on keeping on. It's only the man who says, "Oh, what's the use?" and gives up, that gets beaten and stays beaten. This man looks for results. That's a mistake. Don't look for results. They're coming, all right. But to look for them is only to get discouraged. Go along calmly without any eye for results, beaten perhaps right along till the very hour comes. Particularly keep calm and confident when, after the enemy seems to be getting on the run—whatever it is you want to overcome—he suddenly comes back in full vigor and gives you one of the old humiliating beatings again. That's only because you happened to be irritated about something for the time, or had some other trouble on your hands at the moment, or were off color in some way. There are always these temporary ups and downs. But in the long run they don't count. You keep on keeping on and you will finally win all victories.

If we all have an enemy in our natures to be conquered, we have also a Friend and Companion in our natures and who gets closer and closer with every effort we make. We reach his full acquaintance at last by this faithful and courageous "keeping on keeping on."

Woodside Children Will Give Pageant.

Greenville, S. C.—Woodside Mill's playground will be the scene of a pageant of May Day revels on May 13. W. M. Grier, director of community affairs, announced recently. The pageant will be given by students of the Woodside school. The spirit of May, with her flowers, birds, nymphs and clouds will be present to greet Robin Hood and his band of merry-makers.

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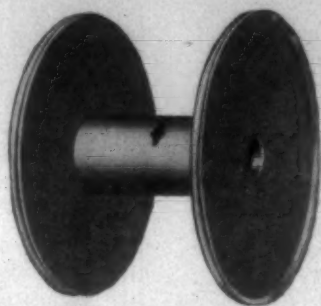
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CAUSES OF BAD RUNNING SPINNING

(Continued from Page 20)

sure that bobbins and quills properly fit the spindle blade. Do not run bobbins or quills that are not true. Do not run too high a speed on cylinders and then spoil the strength and loftiness of the yarn by trying to put in a lot of twist to make it run good. In this case, the slasher cannot penetrate its size properly and the filling kinks in the loom from too much twist. It is not the twist that you put in that always makes the best running work and the strongest yarns. There are many mills today that could cut the cylinder speed 100 turns per minute and increase the front roll speed back to where it originally was and take out the twist and get far better running work and more even and stronger yarns, a smoother faced cloth and better production in the weave room. Some men will not believe this, but I have done it and I know I am right. The spinning was running bad and this change made my work run better and in this way I increased the breaking strength of the yarn after it left the slasher.

Now watch out and see that rolls are properly covered and that bad rolls are kept out of the frame. Take care not to throw out rolls that can be used that will not make bad work. Pull off as little roving in the spinning room as possible. This is very dangerous waste and will cause more breakage of ends when it is reworked again and it has already had its cost added to the work once to get it this near the cloth.

A spinner can put on too many sides which will mean over-taxing, making a lot of scavenger waste and every mill man knows what this means. When we take this waste back to work it over, it means weak, light places which will cause the same trouble when the overtaxed spinner gets it back in the creel. Not only does it make waste, but it ruins top covered rolls. They become choked and dirty and the oil in the roll necks end ends in the cap bars becomes dry and causes friction. Spinners should never be put on more sides than they can handle efficiently and keep clean.

The rolls should be cleaned at least three times every week. Do not allow a roller to run with chokes and bind. The travelers and rings are very important things to watch closely. The travelers should not be too heavy for the number of yarn, but heavy enough to make a firm bobbin or quill. Travelers should be watched to see that they are not mixed in the traveler cups on the creel and all travelers should be changed often enough to keep them from cutting the ends down. This is important and the overseer should see that travelers are not wasted on the floor.

The more ends that come down, the more strings or threads there will be to contend with in the scavenger waste to be extracted or torn up. We all know this. Even the size of ring is a very important factor and the proper size ring should be used to spin the yarn. Sometimes I have noticed a mill that tried to run a number of yarn to which the ring was not adapted. I overcame this in one mill with a larger barrelled bobbin instead of decreasing the size of the ring.

A bobbin or quill that fits poorly will cause bad running work. Too much oil on top rolls is just as bad as too little and will cause bad running spinning. The lack of a system in a spinning room to have certain times for doing cleaning and oiling and then carrying it out to the letter will cause poor work. No spindle in the room should be run longer than two weeks without fresh oil added. Good roller cots are essential to good running work and it is important that they be watched.

Weight levers should be kept lined up in the back boards and on a level for if a weight lever rests on the backboards of a frame, it reduces the weight on the roller and makes bad running work. Frames out of line and not level will also cause it. If the guide wires are not level, trouble will result. If they are not plumb over the center of the spindle, worn rings will cause bad spinning, as will crooked bobbins and quills. Uneven tension in tying on bands will make bad work. If the necks of the steel rolls are worn too much it will run the settings and cause poor spinning. Crooked, worn cylinders and bearings cause the frame to vibrate and cause bad traveler speed and bad spinning. If the scavenger rolls are in bad condition, are crooked or wobbling and running without good covering, bad spinning will follow. If one is crooked and an end happens to come down on it, the laps on it will soon stall it and cause the sliver coming through to fly and catch in another one and break it down. As the roller is naturally already stopped, there will be two slivers wrapping around each other, and if the spinner is already taxed to capacity, naturally there is a spoiled cot or roller and lumps or gouts going on to the spooler, or in the loom if it is a filling frame. The little old underclearer can play havoc and it is such things as crooked underclearers or pins in the ends of them being too short and not reaching from one stand to the other, it will roll out with a very small lap and break a whole lot of ends. When that happens the over-taxed spinner is loser.

What causes it? Carelessness on the part of the boss because he has no system. Why has he no system? He is just too lazy to carry it out. I want to say right here that the boiler room cigarette smoker could not run my spinning room for he is not competent to be a good head doffer. Watch the little things and your bank account will grow.

J. F. L.—Ala.

Number Eight

I wish to write a short article on causes of bad spinning. I will say that the lapper room and card room are running good, but the spinning is not. The ends run bad and the yarn is weak. Will say that the lapper and cards are O. K.

I would start at the drawing. I would see that the rolls are properly

oiled and cleaned and also that there is not too much stretch between steel rolls and calender rolls. Have the trumpets bored right. Very often they are bored too large and will cause the web to stretch between steel rolls and calender rolls. The web should be so that when you lay your hands on it and press it down, it will be a little slow coming up. If it comes up too quickly, you will have some stretch in it and it will cause bad running spinning.

Then I would look over the slubbers and see that the rolls were clean, oiled set right. I set my steel rolls on slubber, front and middle, one-quarter inch wider than the cotton. For 1-inch cotton I would set the rolls $1\frac{1}{4}$ inches. Put in just as little twist as roving will bear and not too stretched in the intermediate. The less twist you run in roving, the evenner the drawing will be. Therefore you need just enough to pull without stretching on the intermediate. Fine frames should be looked over the same as slubbers, except that the setting of steel rolls. I set steel rolls on intermediate 1 3-16 inches for 1-inch cotton, on fine frame $1\frac{1}{4}$ inches.

You should see that the frame hands do not make hard ends in piecing up ends on frames. Keep the tension regulated. Do not let the ends run tight or the roving will be stretched in places. I would also look after the lay gears. See that the lay is not too wide or too close. That will cause roving to stretch in places and make bad running work.

There are many other thing I could mention, but I think these suggestions will help the running of the spinning, while the card room will be running very well.

Now for the spinning room. If I were to take charge of a spinning room where the work was running bad, which I have often done, after I got through with the roving and drawing frames and was sure the roving was all right, the first thing I would do would be to give the spinning frames a thorough cleaning and overhauling. I would plumb the spindles, set the steel rolls, set the guide wires, set the steel rolls just as close together as they would go, not to make cockled yarn, have the bands gone over and remove all slack bands and see that the travelers fit the rings. It is a good idea to send one of your rings to your traveler maker and have them fit the travelers.

The twist in the yarn is very important. There is such a thing as having too much or too little twist. The best way I ever found to tell when the twist was right in warp yarn is to start off with standard twist from the tables. Reel off some and break it, add some twist and break that, take out some twist and test that and find where the yarn will break the strongest. Some cotton requires more twist than others.

As for the draft on spinning, that depends on the hank roving you have and the number of yarn to be spun. A draft of 8 on single roving is good and from 10 to 11 on double roving. The humidity has a great deal to do with the running of the spinning. Do not let the room get too dry. Look after that closely.

I think the best thing I could say right here for the benefit of the young men in the industry would be for them to look out for the little things in the spinning room. Any man can see a machine when it falls down, but the little things that will make spinning run good are sometimes hard to find.

V. C. M.

Number Nine

If I should take a spinning room in bad running order and the card room running good. I would first find what hank roving was in the creels, and the amount of variation it had. Then I would find out my draft constant and run the gears in use through the constant and see if my draft was too long. If not, I would get the twist constant and find out by the same rule by the twist gears in use, through the constant if I was inserting enough twist per inch according to the counts or if I was using too much.

My next turn would be to see that the room was properly conditioned for laying the fibres and using a traveler suitable for the counts of yarn. After that I would have the machines parts well oiled and the proper amount of cleaning done.

With the above done I would see if my spindles were plumb, top and bottom, and the guide wires set to same. I had rather think that more ends come down on the average frame on account of not oiling spindles enough. Some men oil them every two weeks and first have one and then another worker on the job. When spindles are not oiled properly it is not long until the spindles starts vibrating. Then with any defect in the roving, the end will snap off on account of such vibration.

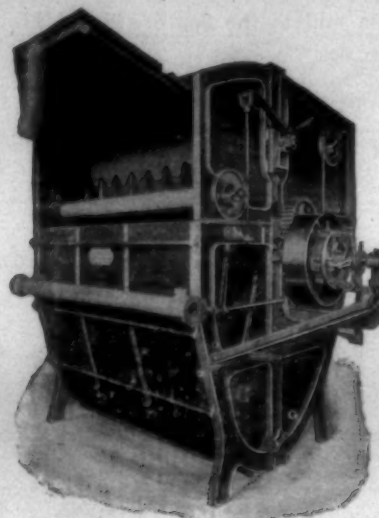
I have seen speeders run unusually well and not get out good work. In some cases the speeders would not have run so well, but there was so much twist inserted at this point, it would get by. The ends might run too tight and work uneven roving or too slack and make soft roving, which would go well at the speeders on account of excessive twist.

If bottom and top rolls are too open for the cotton in use, all the way back to the drawing and twist up at each process by high twist, a very uneven roving will be turned out.

When gears are properly set and cylinders running smooth so as to not cause the ring rails to quiver, with the proper amount of cleaning done regularly and the right kind of oiling regularly, and the oil in the right place most any spinning will run well.

Cobbler.

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Booklet
No. 221

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Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

	Page		Page
A		Kenilworth Inn	27
Akron Belting Co.	33	Keever Starch Co.	—
Allis-Chalmers Mfg. Co.	11	Klipstein, A. & Co.	—
Aluminum Company of America	9	L	
American Cellulose & Chemical Mfg. Co., Ltd.	5	Lane, W. T. & Bros.	43
American Moistening Co.	25	Ladew, Edward R. Co.	—
American Schaeffer & Budenberg Corp.	—	Lawrence, A. C. Leather Co.	29
American Bobbin Co.	26	Langley, W. H. & Co.	36
American Textile Banding Co.	—	Leslie, Evans & Co.	36
Amory, Browne & Co.	36	Lestershire Spool & Mfg. Co.	13
Arabol Mfg. Co.	—	Liberty Mutual Insurance Co.	24
Arnold, Hoffman & Co.	—	Link-Belt Co.	—
Ashworth Bros.	42	Lowell Shuttle Co.	—
Associated Business Papers, Inc.	—	M	
Atlanta Brush Co.	—	Marston, Jno. P. Co.	—
Atlanta Brush Co.	—	Mathieson Alkali Works	3
Atlanta Harness & Reed Mfg. Co.	27	Mauney Steel Co.	—
B		Memphis Cotton	39
Bahnsen Co.	—	Morrow Machine Co.	20
Bancroft, Jos. & Co.	—	Moreland Sizing Co.	20
Barber-Colman Co.	37	Morse Chain Co.	18
Barber Mfg. Co.	30	Mossberg, Frank Corp.	28
Blackmer Rotary Pump Co.	33	Mossberg Pressed Steel Corp.	—
Rond, Chas. Co.	—	N	
Bosson & Lane	37	National Aniline & Chemical Co.	—
Bradley, A. J. Mfg. Co.	37	National Oil Products Co.	10
Broadway Central Hotel	35	National Ring Traveler Co.	37
Brown, David Co.	26	Neutrasol Products Corp.	38
Butterworth, H. W. & Sons Co.	—	Newburger Cotton Co.	39
C		Newport Chemical Works, Inc.	6
Carrier Engineering Corp.	—	N. Y. & N. J. Lubricant Co.	—
Catlin & Co.	37	North Carolina Cotton	59
Charlotte Leather Belting Co.	44	Norwood Engineering Co.	38
Charlotte Manufacturing Co.	—	O	
Chicago Belting Co.	—	Oakley Chemical Co.	—
Continental Hotel	28	P	
Cocker Machinery & Foundry Co.	—	Page Fence & Wire Products Assn.	32
Collins Bros. Machine Co.	—	Page-Madden Co.	35
Cooper-Hewitt Electric Co.	—	Pennsylvania Hotel	43
Corn Products Refining Co.	43	Parker, Walter L. Co.	—
Courtney, Dana S. Co.	—	Parks-Cramer Co.	4
Crompton & Knowles Loom Works	—	Penick & Ford, Ltd.	—
Crump, F. M. & Co.	36	Philadelphia Belting Co.	—
Curtis & Barry	26	Puro Sanitary Drinking Fountain Co.	32
Curtis & Marble Machine Co.	—	R	
D		Reeves Brothers, Inc.	36
Dary Ring Traveler Co.	37	Rex Engineering Corp.	—
Deering, Milliken & Co., Inc.	36	Rossler & Hasslacher Chemical Co.	31
Dixon Crucible Co. Joseph	—	R. I. Warp Stop Equipment Co.	24
Dixon Lubricating Saddle Co.	30	Rice Dobby Chain Co.	38
Drake Corp.	19	Rogers Fibre Co.	8
Draper, E. S.	24	Roy, B. S. & Son	—
Draper Corp.	—	S	
Dronfield Bros.	—	Saco-Lowell Shops	15
Druid Oak Belting Co.	25	Scott, Henry L. & Co.	26
Dunning & Boschert Press Co., Inc.	25	Seaboard Ry.	—
Duplan Silk Corp.	—	Sellers, Wm. & Co.	—
DePont de Nemours, E. I. & Co.	—	Seydel Chemical Co.	38
E		Seydel-Woolley / Co.	—
Eastwood, Benjamin, Co.	—	Siggers & Sigger	27
Eaton, Paul B.	27	Sirrine, J. E. & Co.	—
Eclipse Textile Devices, Inc.	—	Slaughter, G. G.	44
Economy Baler Co.	42	Smith, Malcolm & Co., Inc.	—
Emmons Loom Harness Co.	39	Sonneborn, L. Sons	23
Entwistle, T. C. Co.	—	Sonoco Products	—
F		Southern Ry.	20
Fales & Jenks Machine Co.	—	Southern Spindle & Flyer Co.	31
Farish Co.	24	Spray Painting & Finishing Equip-	—
Ford, J. B. Co.	27	ment Sales Co.	25
Fort Dearborn Fuel Co.	18	Stafford Co.	—
Foster Machine Co.	—	Steel Heddle Mfg. Co.	17
Fournier & Lemoine	—	Stein, Hall & Co.	—
Ferguson Gear Co.	25	Sydnor Pump & Well Co.	35
Franklin Process Co.	—	T	
G		Terrell Machine Co.	—
Garland Mfg. Co.	—	Textile Finishing Machinery Co.	1
General Dyestuff Corp.	2	Textile Mill Supply Co.	2
General Electric Co.	—	Thomas Grate Bar Co.	34
Georgia Webbing & Tape Co.	—	Tolhurst Machine Works	—
Graton & Knight Mfg. Co.	—	Tripod Paint Co.	25
Greist Mfg. Co.	35	U	
Grove Park Inn	12	United Chemical Products Co.	43
H		U. S. Bobbin & Shuttle Co.	—
Hart Products Corp.	—	U. S. Ring Traveler Co.	38
H. & B. American Machine Co.	14	Universal Winding Co.	35
Hollingsworth, J. D.	25	V	
Herald Square Hotel	—	Victor Ring Traveler Co.	—
Hopedale Mfg. Co.	—	Vogel, Joseph A. Co.	—
Houghton, E. F. & Co.	21	W	
Howard Bros. Mfg. Co.	—	Waterall, Wm. & Co., Inc.	44
Hunt, Rodney, Machine Co.	29	Washburn	—
Hyatt Roller Bearing Co.	—	Watts, Ridley & Co.	37
I		Wellington, Sears & Co.	36
Industrial Fibre Co.	—	Whitin Machine Works	—
International Salt Co., Inc.	34	Whitinsville Spinning Ring Co.	27
J		Williams, J. H. Co.	2
Jacobs, E. H. & Co.	—	Wilts Veneer Co.	27
K		Wolf, Jacques & Co.	—
Kaunagraph Co.	—	Woods, T. B. Sons Co.	—
		Woodley Soap Mfg. Co.	34
		Woodward, Baldwin & Co.	35

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Making American Competition Effective

(Continued from Page 7)

The British Department of Overseas Trade calls attention to the great increase in the use of American printing machinery in the Argentine, while a report has gone from Chile to London which gives a long catalogue of British foreign trades in which, we are informed, are never present in the work of our exporters. "In many lines," says this report, "the United States are able to underquote British makers in spite of the higher wages paid for labor in the United States." The Australian correspondent of the London Times informs his paper that "there are, within the experience of the writer, many American manufactures being sold in the British Dominions without effective British competition." A British Trade Commissioner in New Zealand is very sad over the business that comes to the United States because of superior merchandise, service and advertising, while the work of our counsels and representatives of the Bureau of Foreign and Domestic Commerce is looked upon as past of a massed attack to monopolize world trade. A representative of a foreign country, stationed in Venezuela, says our success in that part of the world is due to production of the type of article demanded by the trade, and the same statement appears in other testimony. Let those who say we will not manufacture for the foreign field forever hold their peace!

A Parisian publisher enumerates the things he uses every day, made in this country, and finds the number startling, while a member of the Queensland House of Parliament tells us that Australians have to buy our goods because they are what is needed and we know how to sell and service them. From Bagdad the news comes that "from Alexandria and Jerusalem to Teheran and Resht, everywhere, the tale is the same; American cars there are innumerable," and a British agent in Portugal notes sadly that "the United States gets most of the orders for reapers and binders, American machines being not only cheap but efficient as well." M. Overburg, in his book *Aux Etats-Unis: L'Exportation*, believes that if we continue as at present, "one does not need to be a prophet to predict a crushing superiority."

This is all very well, but what do our friendly competitors say of their own traders? Little that is good, and it would seem that they have absorbed the faults that made us famous a decade ago; at least they accuse themselves of these things, as vocally as we have done. They are poor salesmen, they do not research markets, their advertising is inferior, their catalogues out of date, they send inexperienced salesmen abroad, service is poor and scant attention given to the needs of foreign markets, there is ignorance of geographical positions and of people, and "Made in England" seems to be about all a foreign buyer needs to know about the goods. In the end, however, this criticism will bear abundant fruit as it has

done with us. To be sure there are many foreign exporters who know their business, but in the opinion of foreign competitors the traders of the United States have progressed amazingly in the past few years; they are consolidating their position in all directions and what we do and what we plan to do is being given the most anxious attention.

Our competitors abroad are faced today with a fact of tremendous significance. They see massed, in the United States, wealth and productive power greater than the world has ever known, greater than could be assembled by our united trade rivals. They see this wealth and the product of this industrial power sweeping along trade channels of large and small countries, and the banners of our commerce carried forward by skilled men who will not be stopped. They see our government officials and representatives of business organizations, examining minutely the commercial fields of the world, and they note an avalanche of printed material, in all languages, seeking the buyer in the remotest hamlet and telling him the story of American goods. They find a condition of high wages and immense domestic purchasing power in the United States, leading to manufacturing methods and inventive initiative not approached in any other country nor to be approached in a definite future, and they see millions of American money going abroad to provide insurance for raw materials, save governments and obtain seats of influence in innumerable activities.

These are the pregnant things seen by the man abroad. They are understood much more closely than we ourselves comprehend them. And as they are considered, the foreign merchant or manufacturer has a not unjustified feeling of apprehension. Let us think of this long and carefully! We wish and shall have our fair share of world trade. We do not wish a share that will deprive others of what they need and should have. Our trade flourishes as much by selling to countries which are our competitors as by selling to those who do not compete; England is our chief competitor and our largest over-seas customer. These countries need foreign trade as much as we. A monopoly of world trade for us would be an unmixed disaster.

French Silk Industry Hampered by Exchange.

Despite record production figures in most of the principal lines, the year 1925 was not a prosperous one for the silk mills in France. The principal difficulty was the depreciation of the franc, which caused the cost of foreign raw silk to the French manufacturer to advance very perceptibly. In view of political and financial uncertainties the manufacturers were very cautious in their purchases and, whenever possible avoided the accumulation of stocks of finished goods. During the early months of the year the market was extremely dull, but in the second quarter a very lively delivery prior to July 1, 1925, when the British import duties became effective.

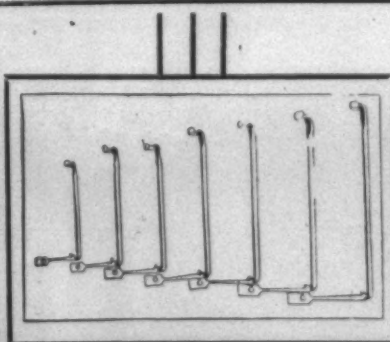


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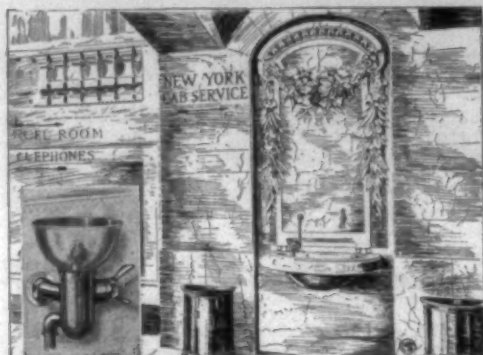


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The Story of Cotton

(Continued from Page 12)

When the country was quiet again Crompton brought down his machine, set it up once more and began to spin upon it a very beautiful yarn, smooth and even, some of it fine enough to weave into muslin. It was bought as fast as Crompton could spin it, and the first result was that the young man had money enough to buy a silver watch. A year later he thought himself sufficient well off to marry. His young wife was a capital spinner, so she helped him very much in his work. The two used to spend their days in the most retired part of the house spinning with the new machine, but they could not supply a hundredth part of the yarn that was required. People began to grow curious about their doings. Crowds thronged about the Hall, crowds who came not only to buy the precious yarn, but to find out how it was produced. Some behaved so ill as to bring ladders, and climb up to the windows to look in. Crompton blocked them out with a screen which he placed round his mule. Then one man actually hid himself for days in a loft above the work-shop, and watched the working of the machine through a gimlet-hole which he pierced in the ceiling just over it.

All this worried Crompton exceedingly, for he was a quiet, timid man, of reserved disposition. "I must either destroy my machine," he said, "or give it to the public." At last he offered to disclose his whole scheme before any number of persons who were willing to pay him a guinea each. A large company assembled—Crompton showed the mule, and explained it to them thoroughly. Some of the party however were so mean as to refuse to pay the small sum that had been asked of them, and the poor inventor only received £67. With this he left Hall in the Wood, where he had been so molested, took a little farm in the neighbourhood, made a spinning-machine on the same plan, but larger, and produced as beautiful yarn as before, in the upper storey of his farm-house. Visitors still worried and annoyed him, but he kept out of their way as much as he could.

It was of course impossible for him to take out a patent. The mule had no sooner been seen that it was copied, and soon such copies were to be found in every cotton-mill in Lancashire. Persons who felt their obligations to the inventor, subscribed £500 and presented it to him. This formed a capital for Crompton's little business. He took one storey of a factory in Bolton, and placed two mules there. The first Sir Robert Peel made him a handsome offer of partnership, but he declined it, for he loved the quiet and seclusion in which he had long lived. Music was still his delight, and he built himself an organ on which to play in his leisure hours.

Ten years after the completion of the mule in the lonely room at Hall in the Woods, Crompton visited the manufacturing districts of the United Kingdom to inquire how far his invention had come into use. He found that between four and five million mules, or mule-jennies, were then at work, spinning forty million pounds of cotton wool in the year, while half a million operatives were earning their daily bread by their means. Crompton's friends drew up a memorial in which they stated these facts, and pleaded that in the ingenious inventor had received no reward for what had benefited so many thousands. This was laid before Parliament in the year 1812. Crompton went to London, and one May evening in the lobby of the House of Commons, he heard Mr. Perceval, the Chancellor of the Exchequer, say to a friend, "We are going to propose a grant of £20,000 for Mr. Crompton, in requital of the service he has rendered to his country." Five minutes later a pistol was fired; Mr. Perceval fell to the ground; the madman Bellingham had shot him dead. The new Chancellor of the Exchequer for some reason, which never was known, only proposed a grant of £5000, which was passed.

Crompton was of course disappointed, but he was too modest and unassuming to push himself forward. For himself perhaps he might have been satisfied; but his children had feasted their minds for weeks upon the hopes of wealth unbounded, and when he returned from London with £5000 only they broke out into loud expressions of anger and vexation, and reproached their father bitterly. Twenty-five years later a second memorial was presented to Parliament, but no further grant was made. Samuel Crompton died A. D. 1827, at the age of seventy-three. The fruit of his solitary hours in the Hall in the Wood still remains for the benefit of the world. The mule, first worked by hand, then by water-power, and now by the steam-engine, has been adopted in every branch of the cotton trade. We may say that it originated the weaving of muslin in Great Britain. At the time of Crompton's birth, Zurich was the only place in Europe where muslins were made. In the year 1787 fifty thousand pieces were produced on our island, chiefly at Paisley, Glasgow, and Bolton, and the manufacture has increased enormously since that time.

CHAPTER VII.

Weaving, and Dr. Cartwright.

The art of weaving was probably even more ancient than that of spinning, and was first practised upon dried grasses and woody fibres, as the South Sea Islanders do at the present day. But it was the art of spinning which gave weaving its great value; for it supplied the loom with threads as long as could be desired, strong and flexible, fit to be worked into a web, substantial and durable enough to be of real service for clothing.

The children of Israel, on leaving the land of Egypt after their four hundred year's sojourn there, were clearly well acquainted both with spinning and weaving. While preparations were being made for setting up the Tabernacle in the wilderness, "all the women that were wise-hearted

did spin with their hands, and brought that which they had spun, both of blue and of purple, and of scarlet and of fine linen. And all the women, whose heart stirred them up in wisdom, spun goats' hair." We read also of Bezaleel and Aholiab, that God filled them with wisdom of heart to work all manner of work and the engraver and of the cunning workman, and of the embroiderer and of the weaver.

In the Odyssey, or metrical account of the adventures of Ulysses, one of the oldest poems in the world, Queen Arete is described as spinning among her maidens,—

"Her royal hand a wondrous work designs;
Around, a circle of bright damsels shines—
Some twist the thread and some the wool dispose,
While with the purple orb the spindle glows."

Another queen of ancient days is celebrated in the same poem for the use she made of her skill in weaving—Penelope, the faithful wife of Ulysses. She certainly once employed her loom in a very memorable way. Ulysses, king of the little island of Ithaca, had been obliged, against his will, to join the Greeks in their war against Troy. He spent ten years at the siege of Troy and ten more on his way back, for he met with many strange adventures, and was hindered by many misfortunes. Meanwhile his poor queen had her troubles. She was beset by a number of suitors, who declared that Ulysses was certainly dead, and that she must choose among them a second husband, who should be king of Ithaca. This she could not make up her mind to do. Something whispered in her heart that Ulysses was still alive—in any case, the thought of marrying again was hateful to her. But she was a weak woman, and the suitors were many and powerful. What she she do? When they pressed her to make her choice, she promised to do so as soon as she had woven a burial garment for her father-in-law, who was now a very aged man. They consented to this delay, and she began the work at once. Three years passed and it was still unfinished; the suitors grew very impatient, but they did not know what to say, for whenever they went to visit her they found her very busy at the loom. The truth was that all she did by day she used to undo at night. One of her servants was so faithless at last as to tell the suitors this, and to hide them one evening in the queen's apartment, when they saw her drawing her shuttle backwards and unweaving her web. They were very angry, and began to persecute her again; but happily Ulysses did return at last to his faithful Penelope and his own home and country.

In the earlier days of Roman history we read of the spinning and weaving carried on by the matrons and maidens of the highest rank. As luxury crept into the state these arts were left to the slaves. It has already been mentioned that the Romans brought the loom to Britain, but our Celtic ancestors do not seem to have learnt its use very readily. At least, for a long period of time, a great part of the wool from our island was exported in the raw state and brought back in the form of cloth.

Yet weaving—even of the sort called fancy weaving—was not unknown in Britain, as we see from this passage of a sermon by Bishop Aldhelm, A.D. 680. "It is not," he said to his hearers, "a web of one uniform colour and texture, without any variety of figures that pleaseth the eye and appeareth beautiful, but one that is woven by shuttles, filled with threads of purple and many other colours, flying from side to side, so as to form a variety of figures and images in different compartments and with curious art." The good bishop here describes a really elaborate kind of weaving, such as requires great skill and patience. Four hundred years later Matilda, wife of William Duke of Normandy, who conquered Harold of England and became the first Norman king of this country, undertook and carried out, with the assistance of her ladies, a very famous piece of figure-weaving, heightened with embroidery. Tradition relates that they wove the web and then enriched it with their needles in worsteds, blue, green, yellow, and buff. The subject of the work is the invasion of England by the Normans. Every different event connected with this is represented in a series of pictures, full of character, but quaint both in design and colour. In fact the colours are used without any relation to the natural hues—men and horses are blue, green, red, or yellow, as the needlewomen pleased; indeed one blue horse has two red legs and a yellow mane. There seems no reason to doubt that this tapestry was the work of Queen Matilda, who gave it to the Cathedral of Bayeux, of which Odo, her husband's half-brother, was bishop. It remained there till the year 1803, when Napoleon I removed it to Paris; but it has been restored to the place where it was kept so long, and from whence it received the name of the Bayeux Tapestry. Nothing can be more interesting as a work of art; it represents so accurately the manners and customs of the Normans and Saxons of that day, and the circumstances of the contest which placed William on the throne of England. Some of its details are very curious. Thus, in the compartment representing the funeral of Edward the Confessor, we see a man placing a weathercock on the spire of Westminster Abbey. This was to show that the building was scarcely finished at the time of his death, which we read was the case. The figures in this piece of tapestry have been counted: there are 760 animals, 623 men, 49 trees, 37 buildings, and 41 ships.

Queen Matilda's example does not seem to have had much effect upon her English subjects. In the year 1331 weaving seems to have been so little practised in our island that the arrival of two weavers from Brabant is recorded in the Chronicles among the important events of the time. These two were the forerunners of crowds of their fellow-craftsmen, first from France. Numbers of looms were ere long set up in different parts of England.

(To be continued)

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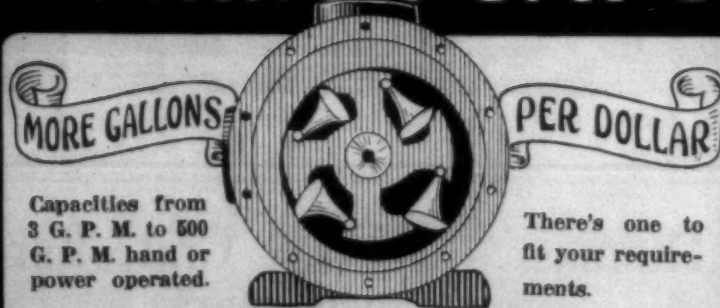
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Complementary Material For Cotton Trade

(Continued from Page 14)

of fancies that he did not think there was any future for other than single yarn. This is mentioned to prove the fact that many enterprising Lancashire men have not realized the enormous potentialities of artificial silk and the simple truth that is has yet scarcely emerged from the experimental stage.

For many months past there has been an increasing demand for British manufactures in overseas markets. The home markets are developing rapidly, but it is very interesting to note that China and India are good customers. Our India trade, with the exception of the steady demand for dhooties, has fallen very low, but from the East the demands for artificial silk garments are continually increasing, and some Lancashire mills are obtaining the bulk of their orders from China and India. The United Kingdom, according to official figures, exported a larger volume of piece goods to India in 1925 than any other country, including Italy, our chief competitor—indeed, almost as much as all the other countries combined.

During the past eighteen months occasional paragraphs and short articles have been published in the press giving particulars of what is called "staple fibre." This staple fibre may be defined as a spun fibre made chemically on a similar principle to viscose. There has not been, until recently, and considerable demand for staple fibre, but since January last inquiries have increased by at least 75 per cent, and it is now coming into prominence as an important factor in the production of certain classes of fabrics. It is a spun fibre specifically produced for the purpose of wool and cotton spinners. So far as can be ascertained, there are only six spinners in Lancashire using staple fibre, and not all of these have had satisfactory results.

There are a number of different staple fibres being produced at the present time, the chief of these being the English fibre called "Fibro" and the Continental fibres "Vistra" and "Spinstro." These fibres have all certain properties in common though they differ in some important respects. Staple fibre is probably a war-time product, and since the war it has been commercialized on a large scale. It is produced either from wood-pulp or cotton, and is spun through very capillary tubes, like ordinary viscose yarns, but in considerably finer filaments. Owing to the fineness of the filaments it is not twisted in the form of thread, but is produced in hank form so as to allow of its being cut into varying lengths. Any lengths of staple can therefore be cut according to particular requirements, and it supplied by the manufacturer in bleached, unbleached, or dyed forms; indeed, it takes practically the same dye as cotton owing to the basis being viscose. It can be produced in very fine filaments down to one denier and in a similar

degree of fineness to that of real silk.

The production of staple fibre on a commercial scale has probably been neglected because viscose yarn manufacturers have been too busy to concentrate on its manufacture, but, as a matter of fact, it was spun in this country ten years ago, and, while the foreign fibres have received greater attention from the press, the writer has examined samples of the English product which is, one might almost say, super-excellent and has a high brilliancy.

Staple fibre has been manufactured into yarn alone and in fine counts, but the best results from a spinning and manufacturing point of view have been obtained in conjunction with cotton, and mixings ranging from 60/40 up to 75/25 have proved satisfactory, the most popular percentage in England at the moment being 70 per cent staple fibre and 25 per cent cotton. It is being spun in Lancashire with American and Egyptian cotton with equally satisfactory results.

Lancashire cotton spinners have only looked favorably on staple fibre from a recent date, but now high-quality yarns are being spun on cotton machinery slightly modified. Owing to the fineness of the filament there must be as little knocking as possible, and it is necessary that it be carded and not combed. A machine is being evolved by a Lancashire firm of textile machinists at the present time to feed to the card in the form of a hopper feed. After carding the processes are exactly the same as for cotton, but it is necessary to slow down the machinery for fine counts. There is not more than one per cent of waste throughout the process.

Staple fibre was first used in this country, as on the Continent, in conjunction with wool, but not as a substitute for wool, and Yorkshire woollen manufacturers have used it successfully for six or seven years. In regard to the number of counts that can be spun, this varies somewhat to the different fibres, but to obtain the requisite strength, counts up to 80's have been found to be best, and when spun in the finer counts it has been found to be a good practice to run a little cotton in with it. It can be spun in either weft or warp, and the fabrics ultimately produced resemble real silk in lustre.

Considering briefly the special qualities of staple fibre, it has been found that ordinary viscose yarns, being coarser in filament have a tendency to break away in the cloth, whereas staple fibre is retained in the cloth. It is of greatest value, of course, in cloths such as velvets, pile, and furnishing fabrics, and other closely woven cloths. In this connection one may usefully quote from an article on the uses of staple fibre in cotton velvets which appeared in the "Commercial" recently: "One of the great advantages of artificial silk velvet over the all-cotton fabric is that it is lighter in weight. Then tendency at present is to make such cloth lighter and lighter per yard, thus often achieving better effects, while at this same time saving expensive material as

well as the cost of weaving. This procedure has enabled manufacturers to produce a cloth which is not much dearer than cotton velvet. At present the average cost of the patent artificial silk velvet is only about 20 per cent above the price of cotton velvet. The usual weight of staple fibre velvet is 15 to 20 per cent lighter than the cotton velvet—*which for present fashions is somewhat stiff and heavy,—it is softer than the cotton, drapes better, and has a finer lustre and a more luxurious appearance.* The writer has also seen gloves and gas mantles made from staple fibre. An important recommendation is that it is very durable and cheaper in fine counts than artificial silk. There is immense scope in Lancashire and Yorkshire for staple for adaption by enterprising manufacturers in specialty cloths: it lends itself to the production of very excellent cross-dye effects, especially perhaps, when it is spun with wool or worsted, and for certain uses has been found to be much cheaper than wool, particularly the finer and merino type of wool.

Beautiful knitted fabrics can be produced which, when handled, possess lustre and a peculiar soft feel which makes them very attractive. It is fair to recognize the very considerable amount of research work that has been undertaken by the dyeing and finishing firms whose efforts have been crowned with complete success.

While the machinery modifications necessary for spinning staple fibre are very simple, yet each spinner in this country devises his own practice, and there is not, at present, any standard practice. This is natural with the industry still in its infancy, and it is probably a healthy condition because, by competition between spinners, methods will be modified and practice improved until a state nearing perfection is reached. It may be well to emphasize that, while staple fibre is rated officially as waste up to a certain length of staple, it is in no wise a waste product but is manufactured for a specific purpose.

Both as yarn and staple fibre in the Lancashire and Yorkshire industries artificial silk is forging steadily ahead, but whether it will ever have an important influence on the linen is very different from that of either wool or cotton. Flax is wet spun, and the bleaching is such that great difficulties are presented. It may be that continued research will solve the problems that have until now hindered its development in this section of the textile industry, but while both Irish and Scottish linen manufacturers may be produced to create a demand, and while a fabric has been composed of artificial silk and flax for which big things are claimed, yet there is very little artificial silk yarn being used in linen manufacture just now, and it is considered extremely unlikely that there will be in the near future. Even the new staple fibres are unsuitable for linen manufacture.

The one thing that becomes clear from an exhaustive investigation of the industry in this country at the present time is that, while there was a temporary lull following the

imposition of the much maligned duties, the demand for artificial silk manufactures is now very considerable and is steadily growing. There has been no change in public taste nor, in view of the quality of the goods manufactured, is there likely to be. The industry is gradually getting on to a sound basis and is creating—has, in fact, already created—a permanent demand. Poor and unsuitable goods have occasionally been thrown on the market which may have tended temporarily in some degree to have undermined public confidence, but, on the whole, the quality of goods manufactured in Yorkshire and Lancashire is consistently high. Research and experimentation go on apace, and the possibilities in the cotton and woollen industries appear to be limitless. It is now recognized that there will be no replacement of the natural fibres—cotton, wool, or silk. It is not competitive but complementary, and has created fresh and additional markets for the textile industry both at home and abroad.

American Silk Mill Operations Decline in March.

The United States consumption of raw silk, the best index of the activity of the industry, continued at the high levels of 1925 during the first two months of 1926. During 1925 the approximate deliveries of raw silk to the mills of the United States averaged 41,779 bales per month as compared with 30,592 during the previous year—a gain of 37 per cent. Although during the first two months of the present year this increased activity was sustained, a sharp decline in operations occurred in March. The relatively stable prices which prevailed throughout the year 1925 were of a distinct advantage to the industry, especially since they moved in a gradual upward trend from the quotations of the early months of the year.

Rayon production increased from about 38,000,000 pounds in 1924 to approximately 55,000,000 in 1925. Despite the expansion the output was readily absorbed, and the imports established a new high, totaling 7,000,000 pounds, against less than 2,000,000 during the preceding year. Price stability was also a great factor in the prosperity of this industry, the producers having kept prices steady throughout the year despite the fact that their output was sold for months ahead and premiums were paid to dealers for immediate deliveries.

Japanese Converted to Use of Rayon.

For some years after rayon was firmly established in the United States and in the European countries, the synthetic fiber was looked upon somewhat askance in Japan, as a possible menace to the principal local industry, the production of silk. The obvious advantages of rayon, however, have been recognized during the last few years, and Japan is rapidly becoming independent of foreign suppliers of rayon yarns, by developing local manufacture.

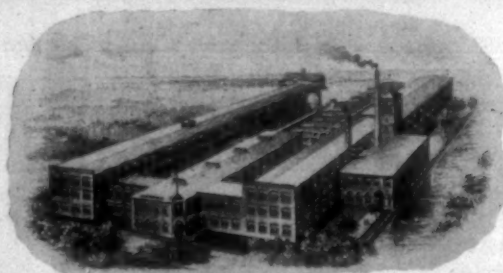
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Wabena Mills, Lexington, N. C., White Hall Yarn Mills, White Hall, Ga.,
Grey Goods, Print Cloths, Twills, Sheetings, Pajama Checks, Arcadia Mills,
Spartanburg, S. C., Clinton Cotton Mills, Clinton, S. C., Hermitage Cotton Mills,
Camden, S. C., Mills Mill, Greenville, S. C., Osage Mfg. Co., Bessemer City, N. C.

Cotton Goods

New York.—Trading in the cotton goods markets continued generally light last week. Slightly lower prices were named on a number of standard print cloth numbers, the markets having not yet had time to feel the effects of the curtailment by many print cloth mills. With a steady increase in curtailment, both East and South, it is believed that the market will be considerably strengthened within a short time.

The bulk of the business done in gray goods was small and called for delivery within the next four weeks. Trade in wash goods was quiet and most houses handling these lines are waiting for more favorable weather to quicken retail demand.

The printed styles of voiles, broadcloths and some of the sateens sold steadily in small orders, many of which covered repeat business. Colored goods were quiet, with prices steady. Trade in the heavier goods, such as duck, tire fabric and similar goods was also small, but prices held well. The demand for gingham was fairly good.

Print cloth sales included 64x60s spots at 7½ cents and 68x72s at 8½ cents. Buyers bids out for ¾ cent less but could find no sellers. June 60s were available at 7½ cents and 68s at 8½ cents. The business of the week included 7.15-yard at 5½ cents, 8.20-yard 5½ cents cents and 5½ cents, 27 and 28-inch 64x60s 5½ cents and 5½ cents, respectively. The market on 80 squares was 11 cents, 72x76s 9½ cents, 6.40-yard 6½ cents, 44-inch 7.25-yard 6½ cents.

Sheetings.—Some sales of 32-inch, 40x40, 6.25 yard at 6 cents, spot; 6 cents the last on spot and nearby 32-inch, 40x40, 6.25 yard; 5½ for late; nearby 36-inch, 48x40, 5.50 yard sold at 6½ cents and some at one-half for actual spot. Most quotations were unchanged. There had been some sales of 36-inch, 48x44, 3.25 yard at 10½ cents, first hands, this being quoted both spots and nearby.

Several thousand pieces of curtain scrims and marisettes sold during the week. Several saw a letting down in the scrim constructions, the 50x42s with combed yarns at 11½ cents giving way to 48x40s at 10½ cents. A fair quantity of 56x34s marisettes sold at 12½ cents. A fair total of low end carded scrims also sold at prices under 5 cents a yard. Buyers were moderately interested in rayon filled marisettes, some of them with dobby weaves. Clipped dots were not noted in the business.

During the past day or two above 5,000 pieces of pongees were reported to have sold at established prices. Combed 34-inch 72x100s sold at 13½ cents and 14 cents and 38-inch at

15½ to 15¾ cents. The volume was not considered as more than routine in character. There are ample spot stocks of several constructions on the market.

Various cotton duck mills have begun to reduce their loom operations and feel there is no incentive for them to accumulate stocks on which buyers may draw with price concessions in mind. Jobbers have found business fair in some instances and make a profit on whatever they sell.

The presence of at least two of the large surgical houses in the Fall River print cloth market and the buying of heavy quantities of 36-inch low counts has resulted in aggregate sales estimated at close to 150,000 pieces. Trading in these numbers has been confined almost entirely to spots and nearby with very few contracts to speak of. Sateens have been in fair demand.

The surgical houses have pretty well cleaned up the character of goods to their use. Heavy trading was reported in 20x12 at 1½; 20x16, at 2; 22x18, at 2½; 24x20, and 28x24, 15.00 at 3. Quick goods were the rule.

In sateens, trading was noted in 4.37 at 11½ cents, and in the 4.70, 10½ cents was paid. For reverse twist 88x48, 9½ cents was paid and some fair sized quantities of this construction were sold.

Wide and narrow plain goods continue very quiet, with additional looms being shut down. The percentage of curtailment in these constructions continues far in advance of Southern mills and destined to continue as long as present trade conditions continue which eventually will mean a total curtailment. Plain goods have been selling on the basis of 43 cents per pound, which manufacturers contend is no incentive to put in new stock when looms run out. Consequently looms are shut down as contracts are terminated.

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s	5½
Print cloths, 28-in., 64x60s	5½
Print cloths, 27-in., 64x60s	5½
Gray g'ds., 38½-in., 64x64s	8½
Gray goods, 39-in., 68x82s	8½
Gray goods, 39-in., 80x80s	11
Brown sheetings, 3-yard	12½
Brown sheetings, 4-yard	10
Brown sheetings, stand	13½
Ticking, 8-oz.	21 a22
Denims	16½a17½
Staple gingham, 27-in.	9
Kid finished cambrics	8½ a9½
Dress gingham	12½a16½
Standard prints	9½

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The Yarn Market

There was no improvement in the yarn situation during the week. Yarn consumers continued their waiting attitude and bought only in small lots to meet their most immediate needs. Prices stiffened somewhat after the better cotton market on Thursday, but remained practically unchanged over the week end. The demand for carded yarns is light, with weaving yarns slightly better than the knitting numbers. There was a somewhat better inquiry in some quarters but prices offered very invariably considerably under spinners ideas.

No material change in the situation is expected here within the next few weeks unless the British strike situation should result in improving the demand. The cotton situation is decidedly unfavorable to the spinners and under present conditions buyers are not expected to show any interest in future contracts unless there is some marked change in the cotton outlook.

Reports from the South indicate that production is slowly being reduced. It is believed that drastic curtailment will come within the next several weeks unless market conditions show great improvement.

Combed and mercerized yarns continue dull and spinners report generally unsatisfactory conditions. Prices offered are very low. Gaston county mills continued their curtailment schedule unchanged.

The price situation shows a good deal of irregularity. Quotations published here are regarded as purely nominal and showed no general change throughout the week. The prices given below are less than spinners quotations:

Southern Two-ply Chain Warps.	
8s	30 a
10s	30 1/2 a31
12s	31 a32
14s	33 a33 1/2
16s	34 1/2 a35
20s	38 a
24s	41 a
26s	51 a52
28s	58 a60
30s	67 a63
Southern Two-Ply Skeins.	
8s	29 a
10s	30 a
12s	31 a
14s	32 a
16s	32 1/2 a33
20s	34 1/2 a35
24s	36 1/2 a
26s	37 1/2 a38
28s	40 1/2 a41
30s	49 a
36s	51 a52
40s	58 a60
50s	66 a67
60s	77 a
Tinged Carpet 3 and 4-ply 26 a27	
White Carpet 3 and 4-ply 30 a31	
Part Waste Insulated Yarn.	
6s, 1-ply	25 a
8s, 2, 3 and 4-ply	25 a25 1/2

10s, 1-ply and 3-ply	27 a
12s, 2-ply	27 1/2 a28
16s, 2-ply	30 a31
20s, 2-ply	32 a
26s, 2-ply	36 1/2 a37
30s, 2-ply	38 1/2 a39

Southern Single Chain Warps.	
10s	30 a
12s	31 a
14s	32 a
16s	33 a
20s	34 1/2 a35
24s	36 1/2 a
26s	37 1/2 a
30s	41 a
40s	51 a52

Southern Single Skeins.	
6s	29 a
8s	30 a
10s	31 a
12s	31 1/2 a
14s	32 a
16s	32 1/2 a
20s	34 a
22s	35 a
24s	36 1/2 a
26s	37 1/2 a
30s	40 1/2 a41

Southern Frame Cones.	
8s	29 a
10s	29 1/2 a
12s	30 a
14s	30 1/2 a
16s	31 a
18s	31 1/2 a
20s	32 a32 1/2
22s	33 a
24s	34 a
26s	35 a
28s	35 a
30s	36 a
32s	36 1/2 a37
40s	48 1/2 a

* Tying in.
Southern Combed Peeler Skeins, Etc.—Two-Ply.

16s	51 a
20s	52 a
30s	58 a
36s	63 a
40s	65 a67
50s	70 a72
60s	75 a76
70s	85 a88
80s	1 05a

Southern Combed Peeler Combs.	
10s	40 a
12s	41 a
14s	42 a
16s	43 a
18s	44 a
20s	45 a
22s	46 a47
24s	49 a
26s	49 1/2 a
28s	50 a
30s	53 a
32s	54 a
34s	56 a57
36s	59 a
38s	60 a
40s	61 a
50s	69 a70
60s	75 a76
70s	85 a88
80s	1 05a

Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.	
20s	48 a
22s	49 a
24s	50 a
30s	54 a
36s	57 a
40s	61 a
45s	68 a
50s	73 a

Eastern Carded Cones.	
10s	35 a
12s	36 a
14s	37 a
20s	38 a
22s	41 a
24s	41 a
26s	45 a
28s	47 a
30s	49 a

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Will sell all, or part of Roller Covering Shop, doing good business. Good location. Would consider part trade for light truck. Reason for selling, bad health. Address "Roller Shop," care Southern Textile Bulletin.

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3 No. 90 Universal Quillers, 20 spindles each.
10 No. 50 Universal Winders, 6" tubes.
18 No. 50 Universal Winders, Small Cones.
3 No. 30 Foster Cone or Tube Winders, motor or belt drive.
4 No. 12 Foster Winders, Cones or Tubes.
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1 McKinney Warp Splitting Machine.
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7 gangs, 140 spindles, Universal No. 90 Winders.
29,000 6-inch Maple Quiller Bobbins for Whittin long chain quiller.
The above machinery is brand new and has never been run. Can be inspected at Burlington, N. C., and will sell in part or as whole. Communicate with J. E. Carrigan, Burlington, N. C.

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3 Saco-Lowell Tape Drive Twist-ers, 4½" ring, 5½" gauge, 100 spindles each, adjustable traverse.
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These twist-ers built in 1914 and not run over one-half the time since. Sufficient amount of bobbins to be sold with the twist-ers.
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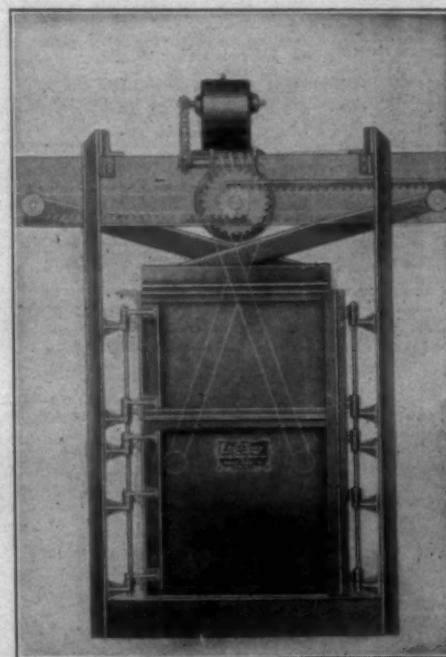
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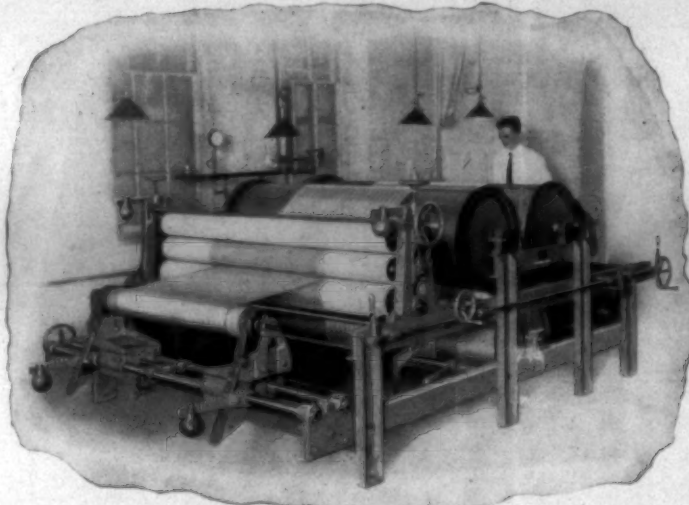
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